

CENTRE AGRO-ENTREPRISE
Mali Sustainable Economic Growth

ANNUAL REPORT: YEAR FOUR (2001 – 2002)
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By:

CHEMONICS INTERNATIONAL INC.
1133 20th Street NW
Washington, DC 20036

Rue 124, Porte 310, Korofina Nord
BP 34, Bamako, Mali

And

Winrock Inc.

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SECTION I

INTRODUCTION

This report describes the results of activities carried-out during the period October 2001 through September 2002 by the Centre Agro-Entreprise (CAE). Activities carried-out during this fourth year helped strengthen those started since the start-up of the project. Therefore, emphasis was placed on the following:

1. Counseling-support to agro-enterprises and the reinforcement of relationships with national and international financial institutions, in order to encourage them to finance agro-food enterprises;
2. Promotion of the results of demonstration tests and pilot projects;
3. The promotion of pilot project models designed to develop the agro-food sectors;
4. Finally, commercial promotion (market prospecting and testing) for agro-food products in order to increase exports.

During this fourth year, priority was given to *enterprise development activities*. Therefore, agro-enterprises in the three traditional sectors: cereals, livestock and alternative products, and particularly fruit and vegetable as well as *karate* butter, received support from the Centre to help develop businesses in these sectors. At the same time, other transversal activities including the training-communication-information component and the improvement of the agro-business climate and counseling-support for financial management, helped address certain constraints so that the agro-entrepreneurs may better exploit development opportunities for their businesses.

Business plans were developed for future project promoters in order to establish collaborative relationships between them and the financial institutions. In addition, training for agro-entrepreneurs was pursued. However, as for the third year, emphasis was placed on capacity building among agro-entrepreneurs in the fields of production techniques and processing technologies. In addition, some training sessions in agricultural enterprise management were provided to well-targeted groups, such as private investors at Office du Niger.

In terms of agro-business climate improvement, collaboration was pursued with IER and professional associations such as APCAM, FEBEVIM, etc. Furthermore, the Centre provided financial and technical support for the animation of the *Steering Committee* for potato in Sikasso, in order to better analyze the constraints affecting the three segments of the sector (production, storage, marketing). Thus, four workshops were organized in September 2002, which resulted in the development and adoption of an *Action Plan* for the promotion of potato in Mali.

This report is composed of the following chapters:

1. The first chapter describes the status of implementation of sector development activities;

2. The second chapter describes the transversal activities in the fields of Information/Training and enterprise development.
3. The third chapter addresses agribusiness climate improvement issues;
4. The forth chapter presents the evolution of expenditures on the Partnership Fund;
5. The last chapter discusses activity monitoring and evaluation aspects.

SECTION II

AGRO-FOOD SECTOR DEVELOPMENT ACTIVITIES

Agro-food products which received support during the 3rd year under the integrated sector development program include the following:

- Livestock sector: marketing of live animals and animal/poultry feed;
- Fruit and vegetable and alternative product sector: mango, potato and shallot;
- Cereal sector: rice, maize and millet/sorghum.

In addition to these agricultural food products, the Enterprise Support Services (ESS) of the Enterprise Development Unit was used as a tool to address enterprise creation or development (business plans) for other products called New opportunities, such as *Karité*, Honey, Milk, Sweet peas, etc.

2.1. Search for new opportunities for livestock products

The lack of adequate feed all year round remains a major constraint that hampers commercial exploitation of national livestock. The lack of commercial channel for the production of high quality composed feed reduces the ability of producers to resolve some of the constraints and therefore prevent them from responding to an increasing demand for high quality animal products at the national and sub-regional levels. This is the problem CAE program for the livestock sector has been addressing for four years.

The strategy adopted by CAE to address this issue was based on enterprise development with two essential components, including the development of demand for high quality feed and the reinforcement of supply through counseling-support to animal feed manufacturers. At the beginning, the program placed particular emphasis on improved management of production and processing enterprise and the development of formal marketing channels targeting structured markets at the national and sub-regional levels.

For the past four years, CAE's livestock sector program has focused on commercial development of the animal feed sub-sector, which remains a key and strategic factor in the modernization and the increase of value-added in the livestock sector, and, to a lesser extent, in the cereal sector. For this reason, development of this sector has been the privileged way for CAE to promote investment and development enterprises in the sector, so as to increase their productivity and competitiveness for national and sub-regional markets.

In fact, the strategy of the program placed particular emphasis, at the beginning, on capacity building for animal feeding techniques and animal production enterprise management, in order to develop the national market for high quality composed feed, designed for a well-targeted production, such as animal fattening, dairy production and poultry farming. The reasoning was to capitalize on an existing high demand for animal

feed of all types and progressive transformation of this into a well-segmented demand by production type. A second aspect was to build capacity among animal raisers to better manage their enterprises and thus help them better control their production costs.

This was considered as being essential for the development of a segmented demand for high quality composed feed and to subsequently promote commercial development of the sub-sector in which, so far, the HUICOMA animal feed has been considered as the baseline reference by animal raisers.

In this regard, the 2000-2001 livestock program place particular emphasis on rigorous management of high quality feed, undertaken by targeted animal fattening enterprises as well as the development of formal marketing channels oriented toward structured markets at the national and sub-regional levels. Activities concerned the reinforcement of technical, financial and commercial management to help these units better manage their production costs and to address an increasing demand for high quality animal products at the national and sub-regional levels. The medium-term objective was to establish professional groups which would prove to be creditworthy in eyes of commercial and financial partners.

In technical terms, the demonstrations clearly indicated that the balanced feed had the potential to produce a much higher average daily weight gain than the traditional feed stuffs, including the HUICOMA animal feed. However, for the economic aspect, profit margins tended to be higher for the traditional feed, due to excessive utilization of balanced feed and, in several cases, a strategy of collective sale which did not permit valorization of well-fattened animals. Despite these weaknesses, all producers were appreciative of the performance of the balanced feed and expressed their interest in buying it next year.

Activities during the past year helped us create a core of professionals who are convinced of the zoo-technical and economic advantages of the balanced feed. We also explained them how to better control their production costs and maximize their profit margins by selling high quality animals. In fact, we demystified the notion according to which the HUICOMA animal feed is the sole option for producers to adequately fatten their animals and demonstrated that marketing is not a hazardous exercise. In addition, efforts to formalize and establish an adapted device for technical and financial management (business plan) by producer groups (cooperatives and associations) began to bear fruit, mainly in terms of reinforcing dialogue and partnership between these professional groups and financial partners.

Regarding the issue of quality control, we clarified and detailed the major problems – nutritional and health - related to poor quality ingredients used in the manufacturing of poultry feed. Following the first phase of the testing program on quality control for poultry feed, the target poultry farmers requested that these results be disseminated and utilized as a basis for the development of a quality control device for these ingredients and for the composed feed sold in the national market.

In line with the above-mentioned strategy, the Year Four program placed emphasis on the following:

- Market development for high quality animal feed, providing support to feed manufacturers instead of animal raisers;
- Conclusion of the program on quality control for poultry feed in order to make recommendations for the establishment of norms and standards for the poultry feed sold in the national market;
- The implementation of a sectoral policy program geared towards the development and diversification of export markets for livestock products;
- The development and start-up of a joint MDRE-SEG-CAE media program aimed at raising awareness and disseminating the results of joint efforts on animal feeding, production cost management and quality control for commercialized feed; and finally;
- Technical support to animal/poultry feed manufacturing enterprises, either through the SSE program or individually.

2.1.1. Development of the Animal/Poultry Feed Sub-sector

A. Market Development for High Quality Composed Animal Feed

The local production of a new balanced feed for cattle and sheep fattening, applying the cereal-based formulation, is the logical result of the demonstration tests that were conducted in Year 3 of the project in the regions of Ségou, Mopti and Sikasso, using an imported feed. This year, the activity was focused on the manufacturing and sale of a new fattening feed through an economic operator based in Ségou (the COPRAAV)¹. In this context, CAE provided technical support for the formulation of and conditioning of the new feed and the development and implementation of a marketing and commercial promotion program.

The objective was to capitalize on the results achieved last year, relating to the adoption of animal feeding practices demonstrated to animal fattening entrepreneurs and a more rapid fattening which resulted from the utilization of a high quality balanced feed. To do so, this year's program focused on the local sale of a new high quality feed at a very competitive price. This approach helped to test the current market for animal feed in terms of segment capacity (feed demand for well-targeted production), in terms of price-competitiveness ratio and reinforcement of competition in the animal feed market, which is currently monopolized by HUICOMA with their "Aliment Bétail", which is actually far from being a balanced feed.

As part of this program, CAE provided technical support aimed at developing a clientele and increasing client reliability. This support placed particular emphasis on the development and implementation of a counseling-support to the manufacturer, targeting the clientele for efficient utilization of the new feed – new feeding practice, better

¹ Ségou and Sikasso feed manufacturers were asked to participate in this activity, but only COPRAAV in Ségou expressed interest.

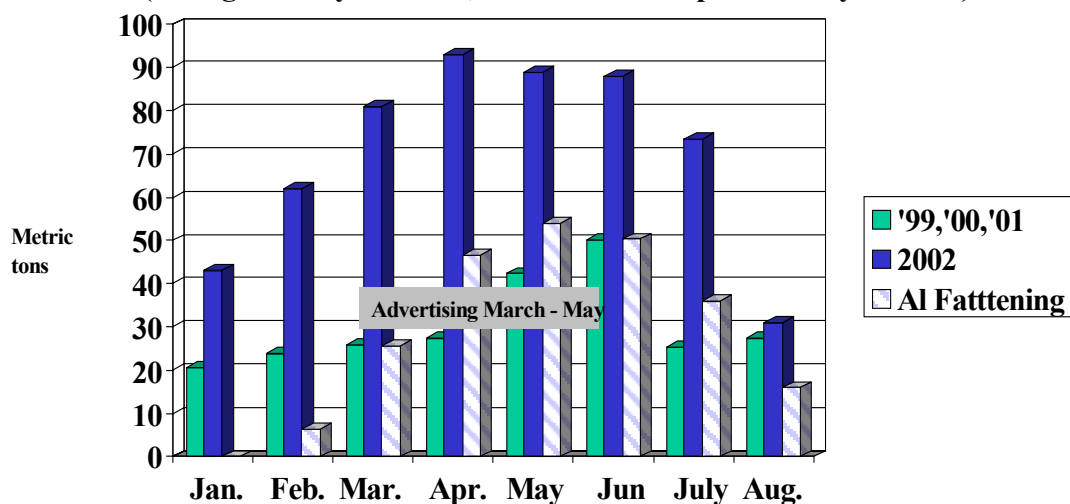
management of feeding and better planning of the marketing. Activities were implemented, taking into account the improved quality of the new feed, its conditioning and advertisement. The objective was to reinforce the professional image of the enterprise.

In collaboration with IER, a formulation was developed, using locally available raw materials. This maize-based formulation was comparable with feed imported from the USA, which was utilized last year for the demonstration tests. As for marketing, CAE provided support to the COPRAAV for the establishment of a very aggressive sales policy in order to compete with the HUICOMA animal feed.

As for the quality of the feed, the COPRAAV controlled its composition through analyses conducted by the Animal Nutrition Laboratory of IER in Sotuba. This program was supported by CAE. Feed conditioning was improved with a trademark packaging manufactured by EMBAL-Mali and using a labeling system which indicated not only feed composition, but also a general advice for utilization of the product.

In fact, more than 180 tons of new feed were manufactured and sold during the period from February through June 2002. This quantity largely exceeded the initial planning for 115 tons². In addition, it is interesting to note that the level of sales for the COPRAAV animal feed³ was higher during this period, in comparison with the past three years (see Chart No.1 below).

Chart N°. 1 : COPRAAV Animal Feed* Sales
(average of the years 1999, 2000 et 2001 compared with year 2002)



Animal Feed made from industrial by-products
* Al. Fattening – new feed made from corn

² As of September 30, more than 220 tons of animal feed were produced and sold.

³ This feed made of industrial by-products has a nutritive value that is clearly below the value of the new fattening feed, but sold at a price that is 35% cheaper than the new feed.

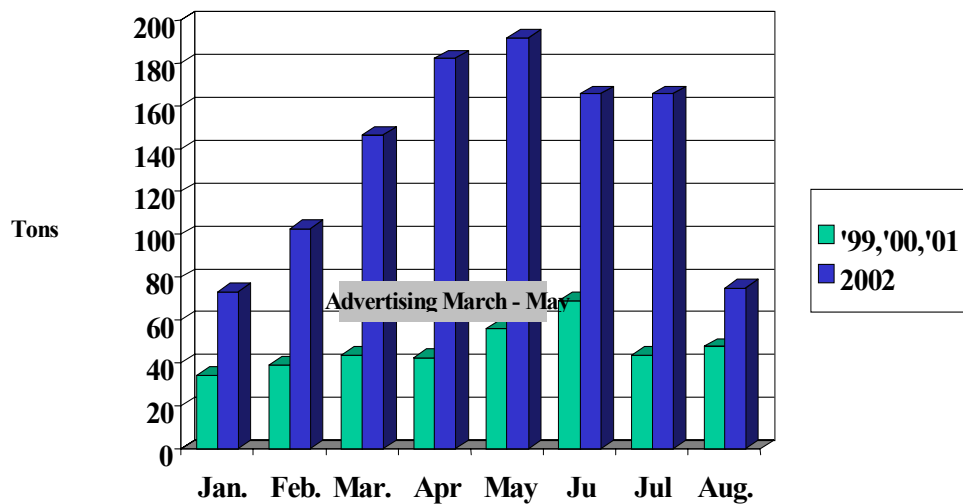
Chart 1 indicates that the level of COPRAAV traditional animal feed sales in 2002 was higher, for the entire period from January through August, in comparison with the average level for the past three years. At the beginning of this period, this high level of sales may be explained by the boost given by the CAN 2002 (African nations soccer cup) for meat production through animal fattening enterprises. However, the sales level continued to increase well after the CAN, thus suggesting that there are other incentive factors.

Since February, COPRAAV has started manufacturing and selling the new fattening feed. This activity has received further support from CAE through a media program for the promotion of the new fattening feed as well as direct support to COPRAAV as a professional manufacturer of animal feed. Advertising spots, micro-programs and magazines were broadcast by local radio stations and by the national television station. Undoubtedly, this program helped professionals in the sector and animal fattening entrepreneurs in particular, to better know about COPRAAV and its full product line. This resulted, for COPRAAV, in increased sales including poultry feed (see Chart No.2 below).

Another factor which contributed in increasing sales of the composed feed was the establishment of additional sale points by COPRAAV in Ségou, Koutiala and Bamako. This measure was taken by COPRAAV as part of its new marketing policy, fostered by the sales program for the new feed.

During implementation of this program, several problems were encountered, notably the increase in cereal prices in the local markets. The prices for maize, the basic raw material for the new feed, increased from 135 FCFA to 175 FCFA/kg during the period January through June 2002. This obliged COPRAAV to increase its prices from 4,800 FCFA to 6,250 FCFA per 50 kg bag, starting in the second fortnight of June.

Chart No.2: Composed Feed Sales by COPRAAV



Average (for 1999, 2000 and 2001 compared with 2002 for all products)

Despite this increase, producers continued to buy the feed. In June sales for the new feed started declining. This may be explained by the fact that animal fattening activities also decline by June-July, as this period coincides with the beginning of the rainy season and animal fatteners buy less concentrated feed. In addition, this period was marked by an increase in maize prices and consequently, increased sale prices for the new feed, which were unaffordable for most animal raisers.

During this period, the sale price for animal feed was about 70 FCFA per kilo, compared with 120 FCFA per kilo for the new feed produced by COPRAAV. However, despite its expensive price, producers/fatteners continued buying the new feed, certainly because of its better performance as compared with other products in the market.

Field surveys during the months of June – July among users of the new feed indicated that most of them use the feed, mixing it with other feed of lower quality, particularly the traditional COPRAAV cattle/sheep feed and also for dairy production.

These producers stated that the high price prevents them from using the new feed exclusively. According to them, this mixed feed provides quite good zoo-technical performance and is cheaper than feeding only with the new feed. They also stated that a ceiling price for the new feed could be set at 100 FCFA per kilo and they would buy it at this price whatever the price for other feed currently available in the market. This practice may produce considerable impact on traditional animal feed sales for COPRAAV, which were much higher in 2002, compared with the preceding three years (see Chart No.1 above).

This program for sale of a high quality new animal feed demonstrated the following facts:

- There is a high demand for high quality animal feed during the traditional animal fattening season ;
- Producers are willing to buy high quality feed at higher prices (with a ceiling price of about 100 FCFA per kilo), compared with HUICOMA's animal feed;
- Good conditioning of the feed is well appreciated by the producers, particularly the labeling system describing the nutritional composition;
- The stability of feed prices over time is very important and, in this respect, feed manufacturers should:
 - *Implement an adequate supply program in order to stabilize raw material costs;*
 - *Be willing to change formulations in order to stabilize, if not reduce, the price of feed whiling keeping the same nutritional values;*
- Producers have high skills in animal nutrition, however, they generally lack experience (training) in production cost control; and
- Producers should take necessary measures to store high quality unprocessed feed in order to maximize the performance of balanced concentrate feed and thus obtain more cost-effective feed.
- The program for sale of a high quality new feed has demonstrated that the market is currently segmented by the fact that there is actual demand for other composed feed, such as feed used for dairy production.

Considering these results, it is proposed that in pursuing this program during the last year of the project, particular emphasis be placed on large-scale dissemination of these results among organized professionals, that is, producers and feed manufacturers. In addition, there is need to take into account capacity building among decentralized support institutions and their partners (including local radio station animators), as part of the communications, awareness raising and extension efforts.

In the context of animal feed sub-sector development, a census was initiated in the regions of Koulikoro, Ségou, Mopti and Sikasso and in the District of Bamako in order to characterize existing production units in terms of technical capacity, management system and financing mechanism.

B. Development of Enterprise Management

1. High Quality Composed Feed Production Enterprises

a) COPRAAV

Support provided by CAE to the COPRAAV for the sale of a new animal fattening feed was not limited to technical support only, but also addressed several organizational and management aspects. To help feed manufacturers play their central role for commercial development of the sub-sector, they need to better structure their enterprises in order to

ensure the delivery of professional services that are adapted to the needs of their clientele. In this respect, they should seek to develop management systems that will help them respond to current demand and, over time, to promote segmentation of this demand for better performing and well-targeted feed stuffs (composed feed).

As for COPRAAV, this small enterprise is currently managed by a technician who has solid experience in the livestock sector, particularly in poultry farming. He has a very professional attitude, good knowledge of the animal feed sub-sector and is very competent technically. Despite the fact that he has taken several internship training sessions in management, even outside of Mali, organizational and managerial problems prevent him from further building on his strengths.

First, he needs to establish an adequate accounting system and we helped him develop the overall framework for such a system. He also needs to establish a supply system that would help him achieve economies on the raw material purchase in order to better stabilize the cost of his products over time. In addition, he needs to improve the technical performance of his production chain, develop and implement a commercial promotion program and a client monitoring system.

As part of the implementation of this activity, CAE provided technical and financial support for the development and implementation of a commercial program for improved conditioning of the final product and quality control, in collaboration with the Animal Nutrition Laboratory of the IER and the Central Veterinary Laboratory.

CAE's support to the COPRAAV for improved management of this enterprise illustrated the importance that needs to be granted to this aspect in order to consolidate over time the technical results achieved. The sale of the new feed helped COPRAAV become more visible as an important and innovating actor in the commercial development of the animal feed sub-sector. Also, as a result of several meetings between the promoter and his bank (BND-Ségou), facilitated by CAE, COPRAAV continued to benefit from a credit line. *However, in order for COPRAAV to capitalize on this success, it needs a financial partner(s) to help modernize its infrastructure, reinforce management and implement an enhanced commercial strategy.*

Despite the fact that CAE has worked with OIKOCREDIT and the PFUS, for two years, to implement an investment-modernization program for COPRAAV, until now, these efforts have not yielded concrete results. Consequently, further efforts must be made by CAE to identify an adequate investment strategy and financial partners in order to ensure future development of COPRAAV.

Management support provided by CAE helped achieve the following results:

- Sales for all feed produced by COPRAAV increased in 2002 by more than 4 times, compared with average sales for the preceding three years;
- COPRAAV improved the conditioning of its products;

- Some of COPRAAV clients requested that a balanced feed specifically designed for dairy production be manufactured and made available in the market;
- Partnership with BNDA in Ségou was further reinforced and COPRAAV is continuing to benefit from a renewable credit line for its operations;
- The manager has committed himself to improving the accounting system; and
- The key-needs for future development of the enterprise (supply system, accounting, marketing and production-conditioning) were clearly demonstrated to the manager and he committed himself to considering them in his business plan, which is under review.

b) FAMAB & SANA

The FAMAB (*Fabrique Malienne d'Aliment Bétail – Malian animal feed manufacturing unit*) was established by the N'Diaye and Brothers Company in Koutiala in 2000, in collaboration with Belisle Inc., Quebec, Canada. This ultramodern unit, fully computerized with a production capacity of 8 tons/hour, is in its completion phase with an estimated investment of 1.5 million US dollars. In addition, the promoters are envisaging to install a kitchen-oil extraction chain (from cotton seed, sesame, peanuts, etc.) which, in principle, should provide most of the raw materials for the production of animal/poultry feed.

For a few month now, CAE has been working with the promoters of FAMAB. This collaboration placed particular emphasis on the establishment of a supply system for raw materials, the formulation of feed which will permit production of balanced feed at lower costs and the development of a commercial strategy for final products. The promoters are currently developing a business plan which will provide a technical and economic context for the content of future activities envisioned under the collaboration between FAMAB and CAE.

SANA, the *Société Africaine de Nutrition Animale* (African company for animal nutrition) is a second commercial enterprise for animal/poultry feed production, which is being established in Mali. This enterprise will be established in Fana, about 100 km away from Bamako on the road to Ségou. The first building block for construction of this enterprise was laid in 2001 and since then, the promoters have been making efforts to complete the financing.

To this effect, CAE welcomed a BOAD mission in 2001 to discuss financing of this enterprise. The meetings discussed technical and economic advice provided by CAE for this project. In addition, the mission requested a copy of the feasibility study conducted by CAE for the establishment of an animal/poultry feed production unit. Several months after these meetings, BOAD decided to finance part of the capital need for this project, with the condition that financing of the remaining capital fund be approved by a Bamako-based bank pool. The promoters have recently signed a financing convention with BOAD for over 600,000,000 FCFA. The next step is to agree with the bank pool led by BNDA for the complementary financing, which seems to be on good track.

With the operation of these two production units, the sub-sector will have a production capacity of at least 150,000 to 200,000 tons of high quality composed feed (of all types) per year when they reach their full capacity. According to CAE estimates, this production would largely cover current demand from semi-intensive production enterprises for meat, milk, eggs and flesh-chicken. However, it should be noted that cost-effectiveness of these units will depend on the establishment of a very rigorous management system, including well-developed and operating channels for raw material supply and product marketing, in order to meet demand from the main intensive animal raising areas. Considering these facts, start-up of activities by these units is not achievable in the short-term.

In contrast, there are already some small-scale animal feed production units that are managed by promoters who have good knowledge of the sector and have expertise in this field. In addition, other promoters requested CAE support to help them develop business plans for establishment of small animal/poultry feed production units (see SSE program below). This window of opportunity is an important target in the CAE strategy for commercial development of the animal feed sub-sector, for several reasons including the following:

- Most of the time, SME promoters have the know-how and practical skills needed for efficient operations in the sector;
- Starting a SME does not necessarily require a lot of experience in business management, which is the case for most promoters;
- For the geographical aspect, it is easier and more securing for promoters to have several SMEs than establishing and efficiently managing a commercialization/distribution network spread over several regions for one or two large enterprises;
- Considering the current status of sub-sector development, the promotion of SMEs will help promote competition in the sub-sector in a more efficient way than in a situation of quasi-monopoly;
- SMEs have the potentials to better respond to the specific needs of promoters, in accordance with the availability of local feed resources;
- In general, SME promoters are more open to technical and financial counseling than large-scale enterprise managers; and
- Considering current difficulties in identifying financial partners for the establishment of agro-food enterprises (sometimes because of the lack of management capacity on the part of the promoters, and the lack of support and counseling institutions), a progressive strategy seems to be the most practical and pragmatic approach to achieving sustainable commercial development in the sub-sector.

c) SSE Program

The SSE (Agro-Enterprise Support Services) program of CAE aims at promoting the development, if not the creation, of agro-food enterprises by reinforcing partnerships between promoters and financial institutions. Considering the fact that these enterprises, in general, do not have readily available documents that reflect their current accounting and financial situations, they are not eligible to bank credits. To address this situation,

CAE has established the SSE program to encourage these enterprises to follow sound management rules, through technical support provided by local consulting firms. As a result, the enterprises should become capable of establishing fruitful relationships with the banking institutions.

During year 2001-2002, this program provided support to **ten**⁴ promoters in the livestock sector, helping them develop business plans for their projects or to develop their existing enterprises. Most of the documents concerned animal fattening, animal feed production and milk production/processing projects. Among the projects for which business plans were developed, none has been financed by now, however, most of them are under review by existing banking institutions. The main problems encountered by promoters with the banks concern their lack of practical experience in the target sector or their inability to meet bank requirements (loan guarantee).

d) Institute of Rural Economy (IER)

As part of the commercial development of enterprises, certain government institutions have an important role to play. For production and processing enterprises in the sector, these include the Institute of Rural Economy and the Central Veterinary Laboratory. For two years now, CAE has been involving these two institutions in two technical programs that are focused on animal nutrition. The goal of these programs was to reinforce partnership between these institutions and the commercial enterprises working either in the field of poultry farming or the production of high quality composed animal feed.

For enterprises producing high quality composed feed, IER provided two types of support under the program for sale of a new animal fattening feed. The first consisted in technical support to the Animal Nutrition Laboratory to ensure nutritional quality to the new feed brought to the market by COPRAAV in Ségou. In this case, several finished feed samples were analyzed in order to determine their nutritive composition. This composition was written on the labels of the feed bags. This practice was well-appreciated by the buyers.

The second support consisted in technical support to prepare and develop a formulation for a fattening feed made of maize, as well as the establishment of a “client monitoring” program by the manufacturer. These two aspects aimed at the following objectives:

- To reinforce the manufacturer’s capacity to use the formulation, first as a management tool (planning for raw material supply, monitoring quality control) and, then as a tool to stabilize the sale price of the finished feed by substituting other cheaper raw materials while keeping the nutritional value of the feed;
- To reinforce the manufacturer’s capacity to better respond to his clients’ needs (marketing/promotion of products / product performance at the buyer’s level); and
- To identify new market windows.

⁴ Seven investment projects for cattle fattening ; 2 investment projects for milk collection and processing and 1 investment project for a poultry farming enterprise.

Concerning the first point, a formulation was developed to facilitate the manufacturing of the new feed. For the second aspect, i.e., the production of high quality feed at low costs, CAE is working with the manager to reinforce his skills for cost control, so that in the future he may be able to modify the formulation in order to stabilize the costs while maintaining the nutritive value. To this effect and under the program for restructuring of COPRAAV, measures are taken to establish simple tools to perform formulation at lower costs. Thirdly, the window of opportunity for dairy feed seems to be a market segment to be explored.

e) The Central Veterinary Laboratory

Under the on-going program, support to the LCV was focused on complementary analyzes (micro-biological) concerning the quality of raw materials and composed feed (animal and poultry). However, it should be noted that the LCV has a greater role to play in the development of animal product and other agricultural product exports products towards sub-regional or international markets through its toxicology laboratory.

Efforts to be made in the future to regulate the national market for the trade of composed feed will need the micro-biological analyses in order to ensure the quality of raw materials and feed commercialized in this market. These analyses should be performed by the LCV. However, the LCV has a greater role to play for technical support to the DGRC for strict implementation of zoo-sanitary agreements governing the sub-regional trade of livestock products.

In this framework, the purpose is mainly to provide technical support to the national program of animal disease surveillance, the diagnostic of infected spots identified by the technical services, private veterinaries and producers as well as the certification of export products by the toxicology laboratory which, in the future, should become a reference laboratory in the sub-region. However, the control of animal diseases through vaccination programs and surveillance remains the first line of defense in order to ensure adequate health status to the national livestock so as to offer high quality animal products for the sub-regional markets. To this end, the LCV is playing a primary role through its program of vaccine production.

The LCV currently represents a very important achievement, through efforts made by USAID for commercial capacity building in the livestock sector. However, these efforts need to be sustained in the future in order to capitalize on the commercial opportunities offered by this sector to foster economic development of the country. The success of USAID's new strategy for the development of production and marketing in the sector is directly related to the efficiency and sustainability of the LCV as a support institution and as an industrial enterprise for the production of vaccines. In this respect, it is suggested that USAID consider the possibility of negotiating a performance contract with the GRM for an institutional support aimed at building capacity of the LCV so that it may fully play its role in the economic development of the livestock sector and of the country as whole.

2.1.2. Animal Production Enterprises

A. Commercial Poultry Farming Units (Poultry Feed Quality Control)

In the developed countries, poultry farming is the mainspring for technical and commercial development of the animal feed sub-sector and in the future, the development of the sub-sector in Mali will be strongly related to the development of the poultry farming sector. Development of this sector is presently hampered by several problems including the following:

- The lack of locally available adequate sources for one-day-chicks;
- The lack of rigorous sanitary monitoring by the promoters;
- The lack of a regulated market for the sale of raw materials and composed feed for poultry (lack of norms and standards);
- The lack of adapted technical support for composition, analysis and nutritive value assessment of poultry feed;
- The high cost of raw materials and of finished feed;
- A relatively low demand, particularly for flesh-chickens, compared with supply potentials.

At the production level, problems related to feeding constitute a major constraint for producers. The problems are twofold. First, the high cost of raw materials in relation to their nutritional inputs and, secondly, the lack of means for quality control (balanced composition in nutritional terms) of composed poultry feed. Considering these problems and others, among which sanitary prophylaxis ranks first, the production costs for poultry farming crops remains relatively high in comparison with other neighboring countries (mainly Côte d'Ivoire and Senegal) and hampers the growth of national consumption by a population for whom red meat remains the preference.

Consequently, for the past two years, CAE has undertaken a testing program for the quality control of poultry feed in the suburbs of Bamako. This area was targeted first because it has the strongest concentration of commercial poultry farmers in Mali and therefore it is an area where improvement of the quality of poultry feed would have considerable impact on productivity and production costs. In addition, this is the area where the establishment of a quality control system for poultry feed by the producers themselves would be most likely successful, as they spend millions of CFA francs per month in poultry feed.

In partnership with poultry nutrition and health consultants from the Animal Nutrition Laboratory of IER and Central Veterinary Laboratory, this program aimed at reinforcing partnership among these support institutions (IER, LNA and LCV) and to demonstrate to target poultry farmers the necessary improvements for better management of their production program in order to increase cost-effectiveness of their businesses.

The last phase of the program was completed this year. This evaluation phase was focused on an assessment of improvements introduced by the producers, following the diagnostic phase (situation assessment) which was conducted last year.

As a reminder, the first phase revealed that various feed and feed ingredients did not always meet the needs of poultry. Most of the ingredients were contaminated with the *aspergillus* and *aflatoxine* and the nutritional value of fish flour was too much variable, sometimes lower than international standards by 50%. In order to obtain verifiable results, analyses were performed by four laboratories, including:

- IER's Laboratory of Animal Nutrition, for outreach nutritional control;
- The National Laboratory of Animal Nutrition (LCNA) in Abidjan, for contradictory nutritional analyses;
- The Laboratory of Health in Bamako, for bacteriological and fungus quality control; and
- The French laboratory EVIALIS, for contradictory control of calcium content measurement.

In addition, most of the businesses were confronted with a problem of water quality which had a negative impact on the efficiency of the sanitary prophylaxis program and on the nutritional aspect. Analyses performed by the IER's Laboratory of Animal Nutrition also revealed a deficit in calcium content in the composed feed for several poultry farming crops. Moreover, during the hot season, the pathology division of the Central Veterinary Laboratory recorded several cases of *osteomalacy* among adult poultry, along with an egg laying level lower than normal and with very fragile shells. These factors directly support the conclusion that producers must pay more attention to the calcium content in the composition of feed.

Analyses indicated that the problem of hypocalcaemia was rather multi-factorial than solely related to the quality of oyster shell. In this respect, it was suggested that producers take into account the following recommendations in order to improve the calcium content in their feed:

- Raw shell in its natural state should not be used because of its variable bacteriological quality;
- Old shells should not be used because of their low calcium content and poor bacteriological quality;
- Burned shells should be used with the condition, however, that they are processed according to the rules of the art;
- A supplement containing Vitamin D-3 should be added to the composed feed in order to facilitate calcium absorption;
- Respect of the *phosphocalcic* rapport should be ensured;
- Poultry should be given calcium granulates rather than fine powder;
- A feeding plan should be implemented in accordance with the climate and age of the poultry – increasing the nutriment concentration in the feed during periods of high heat for chicken in the high production and aging phases.

In addition to their role in the testing program for poultry feed control and for the new fattening feed, the Animal Nutrition Laboratory of IER and the Central Veterinary Laboratory are involved in the joint CAE-SEG/USAID program with the “Direction Générale de la Réglementation et du Contrôle”. Under this program, these two institutions will be responsible for analyzing feed samples and raw materials obtained in on the ground by regional technical services. They will also be involved in a national program of awareness-raising and information, targeting feed manufacturers and producers.

This joint program aims at establishing an adapted device for quality control of raw materials and composed animal feed that are sold in the national market. This device will be applied by the Direction nationale de la Réglementation et du Contrôle. As indicated above, this program started during the first fortnight of the June and envisions, first, to address quality control of fish flour, maize and poultry feed. The diagnostic phase of this program started by late June, with the assessment of baseline data about the nutritive composition of raw materials and composed feed produced under the CAE program for quality control of the poultry feed and development of an operational framework for development of the device.

It should be noted that the Animal Nutrition Laboratory will have a great role to play in the commercial development of the animal/poultry feed sub-sector. This laboratory should become a technical support institution for the DGRC for the enforcement of basic norms and standards for composed feed marketing. In addition, it should provide technical services to feed manufacturers and even to producers for feed quality control. However, for this laboratory to reinforce its service delivery, it requires support in several aspects.

Institutionally, CAE is supporting management capacity building for the Animal Nutrition Laboratory through a support program between IER and CAE. The goal of this program is to increase overall incomes of IER through better service delivery by its technical laboratories. To this effect, the CAE program has targeted the Food Technology Laboratory (LTA) and the Animal Nutrition Laboratory. At first, the program was focused on the development of business plans in order to provide each laboratory with a technical and financial mechanism that help it establish a better performing management system.

After two years of joint collaboration with the LNA, it is now obvious that this laboratory also needs other types of support, including the following:

- Training for the technical staff to use the new analytical equipment;
- Establishing relationships with other similar laboratories in order to reinforce its technical capacity (in-service training);
- Membership in a network of laboratories in order to harmonize analytical techniques and ensure credibility of its results; and
- Establishing a commercial program (advertising, awareness-raising, contacts with clients).

B. Animal Fattening Enterprises and others (media program)

Efforts to build capacity among producers for efficient utilization of balanced feed were focused on two aspects, including: (1) technical support to buyers of the new fattening feed, a program conducted by COPRAAV; and (2) the development of a joint program for awareness-raising and training in animal feeding.

As for COPRAAV's clients-producers, field visits were carried-out to assess the performance of the new feed and to counsel producers on its utilization. The objective of these activities was to demonstrate to COPRAAV the importance of client monitoring as part of its marketing and market development program. This program will be pursued during Year Five.

Commercial development of the animal/poultry feed sub-sector in the medium and long-term depends not only on the availability in quantity and quality of composed feed at competitive prices, but also on the know-how of producers for efficient utilization of balanced feed in terms of zoo-technical aspects.

Concerning intensive animal raising enterprises, the utilization of balanced feed represents a new dimension of management for producers. Traditionally, the animal feed market has been dominated by HUICOMA's animal feed, which in fact is merely cattle-cake made out of cotton seed. Except for poultry, balanced feed almost does not exist in the market and even for poultry feed, very little attention is paid to the control of their nutritional quality. In order for the market of balanced feed to develop, animal raisers should be able to make the most profit of the zoo-technical advantages derived from efficient utilization of balanced feed. To do so, they need to be sensitized, supported and trained.

Considering this fact and in the perspective of better utilization of other fodder products which are available on large-scale in Mali, CAE, in collaboration with the Direction Nationale de la Réglementation et du Contrôle, the Direction Nationale de l'Appui au Monde Rural, the National Project of Support to Poultry Farming and USAID-SEG, started a national program in July, which is focused on animal feeding with a particular emphasis on more efficient utilization of fodder resources.

2.1.3. Processing Enterprises

In economic terms, it should be noted that the export of hides and skins represents an important source of foreign currency that may be estimated at 2-3 billion (officially) FCFA per year, but probably higher in fact. Despite the fact that the world market for hides and skins did not record significant growth during the past few years, the demand for high quality products, particularly skins, is fairly high and the export of high quality processed and tanned skins from Mali grew-up during the past few years.

To this regard, the operation of the new tannery in Ségou by the ADOBERA-Sahel company, which is planned for the forth quarter of year 2001 is envisaging to increase the

monthly turnover, currently estimated at 87 million FCFA, by at least 30% during the first year of operation of the tannery. However, considering the difficulties related to administrative procedures, the mobilization of financing and the acquisition of production equipment, this project has a delay of about 12 months. At the current stage, with support from CAE and USAID-SEG, the following steps have been completed:

- Definite ownership title over the plot of land was achieved;
- Three preliminary studies were carried-out and completed, including the environmental study;
- Approval was obtained for establishment of the company; and
- The construction license has been delivered to the Malian promoter.

The Malian promoter has started preparing the site, construction of the bore hole and supplying the site with initial production equipment. Fund raising problems are being resolved with the American and Spanish partners. However, another problem, which came-up recently, is the lack of and high price of construction materials in Mali, as a result of the socio-political crisis in Côte d'Ivoire, which has blocked trade between the two countries. In the future, this problem may have a negative impact on the progress of construction works.

2.1.4. Development of sub-regional trade of Livestock Products

A. Promotion and Diversification of Export Markets

Cattle and animal product marketing is the mainspring which will speed-up sustainable development of all links of the livestock sector and of the related sub-sectors, such as high quality composed feed. To this effect, the development of sub-regional markets remains a priority task.

During the year 2000 the livestock sector contributed 15% of the GDP and generated more than 90 billion CFA in foreign currency. Compared with total exports of the country, livestock products ranked third, after cotton and gold. Most of the exports were live animals, increased number of which offers more opportunities to increase export currency incomes for the sector in the short-term.

Continued development of exports in the sector will require efforts aimed at diversification and expansion of regional markets. In this respect, commercial development and diversification of sub-regional markets is confronted with two major requirements. The first consists in negotiating commercial agreements with partner countries related the trade of cattle and animal products. These agreements should clearly define the roles and responsibilities of each partner in order to ensure that the clauses of the agreements will be enforced.

The second requirement relates to implementation monitoring of the agreements and the mobilization of the private sector so that it may take advantage of these agreements in an efficient and professional manner in order to penetrate and secure its share in the target

markets. Market development in a formal framework and the opening of new markets provides not only new opportunities, but also new requirements. The establishment of new commercial partnerships, the formalizing of contracts, the assessment of product competitiveness and cost-effectiveness in relation with the target market and the development of contacts with regional banking institutions constitute the complex and sometimes difficult-to-control elements, even for structured markets which is seldom true for cattle markets.

On the strategic side, these two requirements are inter-related, since the role of the public sector should be to establish a regulatory framework that fosters professional and sustainable development of the livestock sector and which provides sound indications to the promoters for conducting their businesses. Such an approach is essential for formalization of the business framework for the private sector and for livestock sector entrepreneurs to become a commercial force in the regional market.

Although the development of export markets depends on the negotiation of bilateral agreements, the impact will be determined by rigorous enforcement of the clauses of these agreements and the technical, financial and management capacity of the operators to use the agreements as a means to reinforce their enterprises, invest, secure and penetrate new markets and develop new products.

It is in this perspective that CAE, in close collaboration with USAID-SEG started, during the month of July, a policy program focused on the promotion and development of sub-regional markets for livestock products. This program, which will involve all partners, including CAE's private clients and the DGRC of the MAEP (former MDRE), started with a census of existing commercial and zoo-technical agreements between Mali and its partner countries and an assessment of the major constraints encountered in the enforcement of these agreements.

Agreements and Zoo-Sanitary Projects (June 2002)

<i>Country</i>	<i>Agreement</i>
1. Morocco	None
2. South Africa	None
3. Burkina Faso	Agreement on transhumance and zoo-sanitary agreement signed in 1998
4. Gabon	Two missions were carried-out in Mali, Mali prepared a draft agreement in 2000, which is not yet signed
5. Mauritania	Zoo-Sanitary agreement signed
6. Nigeria	Draft agreement prepared in 2001, not yet signed
7. Ghana	Two draft agreements were prepared but none has been signed
8. Côte d'Ivoire	Agreement signed in 1999
9. Algeria	Zoo-Sanitary agreement signed in 1990 and an agreement for meat exports, signed in 1996 (the problem of apthous fever)
10. Senegal	Zoo-Sanitary agreement signed in 1993
11. Libya	Zoo-Sanitary agreement signed in 1989

To date, Mali has signed zoo-sanitary agreements with Burkina Faso, Côte d'Ivoire, Senegal, Mauritania, Algeria and Libya for the export of live animals. As for the agreement signed with Libya, this was done in a general framework of trade which states that a detailed agreement will be developed by the two countries in the future. In general, all of these agreements need to be updated in order to take into account the trends of the sero-surveillance system, prophylaxis procedures and sanitary control measures approved by the OIE (International Organization for Epizooties).

Draft zoo-sanitary agreements have been submitted to Ghanaian, Nigerian and Gabon authorities for over one year. To date, none has been signed. In addition, Guinea, which was not involved in this process, seems to be an emerging export market for itself and for Sierra Leone and Liberia. This country should therefore be considered for future negotiations.

Sanitary and commercial requirements are much more rigorous for the export of animal products, such as meat, than they are for live animals. Agreements for the export of meat were signed between Mali and Algeria and Libya. For Libya, a detailed agreement remains to be negotiated. In the case of Algeria, the agreement in effect which was signed in 1996 contains conditions that Mali cannot meet today, such as:

- The existence of controlled quarantine areas for animals to be slaughtered;
- The lack of apthous fever spots for a period of at least two years;
- Serologic detection of all animals designed for slaughtering for the Rift Valley fever and *cowaridose*;
- The certification that neither anabolizing substances nor toxic or other substances that may be a public health risk, have been used in the production of animals designed for slaughtering.

Overall, this assessment led to the following conclusions and recommendations:

- The agreements in effect should be reviewed in order to take into account present conditions regarding animal health, cattle movement, and the sub-regional trade, for example WAEMU;
- Additional efforts need to be made to conclude agreements with other countries in the sub-region, which offer opportunities for the export of live animals and animal products, such as Ghana, Guinea, Nigeria and Gabon;
- Disease surveillance activities (epidemiological surveillance), follow-up of control activities and the dissemination of results within OIE, should be considered in order to ensure their compliance with OIE requirements and to ensure that they will provide necessary proof in case of alleged non-compliance with the zoo-sanitary agreements in effect, credibility of the sanitary certificates and efficient control of epizooties; and finally

- The zoo-sanitary agreements are part of the trade agreements which define a regulatory framework for the development of export markets for cattle and animal products. To this effect, they must be developed taking into account not only the sanitary aspects, but also commercial criteria. In addition, once an agreement is signed, the role of the public sector is not finished. On the contrary, the implementation of commercial agreements requires a rigorous monitoring of their enforcement and other measures which will encourage and/or facilitate utilization of the agreements by the private sector. Notably, one may cite the enforcement of measures designed to secure investment capital and reduce commercial risks.

The above mentioned points provided a basis for discussion, which was pursued by Malian authorities with their counterparts in certain targeted countries in the sub-region (Togo, Benin, Gabon and Senegal) through an official mission organized by USAID-SEG during the months of August and September. The objective of this mission was to clarify the regulatory framework to help Malian exporters penetrate or secure their market shares in the target countries and to identify necessary elements for a support program that would facilitate exports towards non-traditional markets in the sub-region.

As a second step, the facts identified by this mission will serve as a basis to organize a forum that will bring together Malian authorities, representatives of the administration and the private sector of countries visited, representatives of banks and Malian operators. This forum would present the conclusions of the mission and provide an opportunity to discuss a regulatory and legislative framework as well as supporting measures aimed at fostering commercial exchanges within the sub-region. The next step after this process will be the establishment of relationships between operators of various countries, facilitated by CAE and other partners in order to encourage and sustain businesses related to the export of animal products. This forum is planned to take place in the last quarter of 2002.

B. SOGEMAF

In the policy adopted by CAE for the promotion of animal product exports towards sub-regional markets, the creation and operation of border markets represents a strategic activity. According to this strategy, a border market should be developed as a cattle trading pole that fosters exports.

For the past two years, CAE has worked with its partners, mainly professionals in the livestock sector in the Regions of Mopti, Ségou, and Sikasso, to translate into reality the establishment of a new company in charge of the management of the Sikasso border market. This activity falls under the CILSS Project for Fluidification of Exchanges and Rapprochement of Agro-Food Policies (FERAP) with the objective of designing a network of border markets. Within this vision, collection markets and other important markets may be connected, if necessary, in order to encourage national and intra-regional cattle trade.

The project started with the operation of two border markets (Bittou and Niangokolo) in Burkina Faso and the signature of a protocol agreement between COBAS (*Coopérative des Marchands de Bétail de Sikasso*) and the CILSS for the renovation and transformation of the Sikasso cattle market into a border market.

In 2000-2001, CAE implemented a program with professional organizations from the Regions of Mopti, Ségou, Sikasso and Koulikoro which are strongly involved in the organization and establishment of the Sikasso border market. This program aimed at building technical and management capacity among operators in order to improve the supply of high quality animals designed for national and/or sub-regional markets. This program placed a particular emphasis on new management best practices for animal feeding, planning commercialization and controlling production costs. The operators were introduced to the basics of business management through the development of a business plan for each professional group.

In 2002, CAE, with its partners, mainly CLUSA and ACOD, provided support for meetings planned for the creation of a private company to take responsibility for the management of the Sikasso border market. Presently, this company has been established in the name of SOGEMAF (*Société de Gestion du Marché Frontalier*) with more than 50 shareholders, mostly composed of professional groups in the sector. The company is currently managed by elected officials who are members of the professional groups, but they are in the process of recruiting experienced staff in order to ensure sound and transparent financial management. In addition, CAE has financed, along with a contribution from SOGEMAF, the development of a business plan which should determine future activities and define priority action of the company so that it may become an important force to promote livestock product exports in the sub-region.

C. FEBEVIM

Regarding professional institutions at the national level, for the past two years, CAE has been providing support to the FEBEVIM which was established in 1999 with the objective of constituting a real force for the promotion of the sector and a negotiation force with other partners (State, external clients, financial institutions, etc.). To support this approach, CAE in response to a request from FEBEVIM, financed a study in 2001-2002 to assess the strengths and weaknesses of the federation and identify the areas in which it may undertake activities to generate financial resources for itself.

This study revealed certain weaknesses of the federation. The most important of these was the lack of adequate membership at the grassroots level. In fact, FEBEVIM was established at the national level without in-depth grassroots involvement. On the ground, in certain regions, the existence of FEBEVIM is not even known or, worst, there is antagonism between representatives of FEBEVIM and other actors in the sector. To address this problem, the study proposed that FEBEVIM undertake a national program of awareness-raising and information in order to reinforce its membership base and recruit reliable members. This activity is considered as a necessary pre-requisite for FEBEVIM to play its role as anticipated and start activities that may ensure its financial and

professional viability. CAE is examining with FEBEVIM the ways and means to implement this program next year.

2.2. Search for new opportunities for fruit and vegetable

2.2.1. Search for new opportunities for Potato

During Year IV, CAE's efforts in the potato sector were focused on the following:

- a. Dissemination of the technical and technological package among a larger number of producers in collaboration with sustainable government institutions such as DNAMR, OHVN and Office du Niger;
- b. Improvement of market operations through dissemination of price information in collaboration with the OAM;
- c. Fund-raising for organized producers;
- d. Outlet research in the sub-region for high quality potato;
- e. Organizing actors in the sub-sector by animating the Steering Committee.

A. Information and awareness-raising among producers to improve the quality of potato through storage best practice

Activities for development of the potato sub-sector during Year Four essentially concerned awareness-raising among producers for the adoption of cultivation and post-harvest (storage) best practices. In order to make this awareness sustainable, government services (DRAMR in Sikasso, OHVN and Office du Niger) were involved in the organization and implementation of awareness-raising sessions. This permitted extension of CAE intervention zone to include Kati (OHVN area) and Niono (Office du Niger area).

To better implement this program, the following three strategies were developed:

1. Direct counseling-support provided by the NGO AMATEVI to producers in ten villages in Sikasso. In order to consolidate results achieved during the Year III training sessions, a sub-contract was established with AMATEVI to pursue extension activities about the storage boxes and the utilization of the anti-germ in several villages in Sikasso, so as to improve storage conditions for potato.
2. Development of a *magazine* and a *micro-program* in collaboration with CESPA which were broadcast by local radio stations and ORTM (the national radio and television station);
3. Organization of outreach broadcasting sessions of the magazine and micro-program in Kati (OHVN area), Niono (Office du Niger area) and Sikasso. In order to ensure sustainability of these producer awareness-raising sessions, copies of the tapes (video and audio) was given to DRAMR managers in Sikasso and to

OHVN and Office du Niger managers, urging them to pursue the broadcasting of these tapes in their intervention areas.

In terms of results, the awareness-raising campaign has already had some impact in the villages which received support in Sikasso for the adoption of innovations introduced by CAE (utilization of the boxes and the anti-germ for the conditioning of the stocks and the adoption of improved warehouses).

For example, a producer group in the village of Sabénébougou self-financed the manufacturing of 300 boxes. The quantity stored in these boxes in 2002 was estimated at 7,500 kg with an average loss rate of 12%. The quantity sold was 6,600 kg.

It should also be noted that the Gnagansoba group built a warehouse for potato storage in April 2002, similar to the CAE prototype. According to group leaders, the construction of this warehouse, sizing 14 m x 6 m, was encouraged by a visit to the prototype in Bogotière. Except for the roof (corrugated iron and wood) which cost 800,000 FCFA, all construction works were achieved through voluntary labor investment.

B. Support to the development of potato storage and marketing enterprises

Transversal activities for the development of potato storage and marketing enterprises focused on the following:

1. Conducting a collective operation of storage in the prototype warehouse with two of the ten village groups;
2. The collection and dissemination of price information with OAM;
3. Support for business plan development and fund-raising.

Validation of the warehouse prototype

The NGO AMATEVI provided support to two village groups to conduct a collective storage operation using the CAE prototype warehouse. This support mainly concerned the monitoring of potato purchases for storage, treatment of the stocks with the anti-germ and stock monitoring. The stocks were collected during the period from March 13 to April 11, 2002, when prices ranged between 125 and 130 FCFA/kg. Later, AMATEVI facilitated the acquisition of the anti-germination product (*luxan gro stop*) for the groups and assisted their committee members with treatment of their stocks. The cost for treatment of one ton of potato was estimated at 5,000 FCFA, or 5 FCFA/kg. The Bogotière group successfully stored 31,372 kg in their warehouse. As for the Sabénébougou group, they stored 37,500 kg, representing the theoretical capacity of the warehouse. After 4 to 5 months of storage, the two groups sold their stocks in June and July 2002.

For the Sabénébougou group, who sold their stocks in June 2002 at 225 FCFA/kg, the quantity sold was 30,572 kg. It should be noted that at entry the stock was 37,500 kg, meaning that the loss rate was 18.47%. This loss rate proves to be very high, compared

with the theoretically planned rate of 4%. Surveys conducted among the farmers who had individual stocks in private warehouses indicated loss rates of up to 30% in some of the private warehouses.

In Bogotière, the other village, the quantity sold following storage was about 26,490 kg for a stock of 31,372 kg at entry. Unlike Sabénébougou where the stock belonged to the group, the Bogotière stock was composed of 13,500 kg for the group and the remaining 17,872 kg belonged to individual voluntary members (17 members) who wished to help the group reach the quantity needed to test the warehouse.

The observation in Bogotière was that the loss rate was far from being uniform between the group stock and individual members' stocks. The loss rate for the group stock was 17.92% while the rate for individual stocks varied between 29.59% and 5.06%. It should be noted that more than half of the private stocks (9 out of 17 lots) varied between 9.58% and 5.06% of loss rate.

Thus, the lower rates recorded in Bogotière which are closer to the anticipated theoretical rate (4%) concerned the private stocks belonging to individual group members who certainly enforced the production best practices (adequate utilization of fertilizers, proper post-harvest operations at farm level, rigorous grading of the tubercles at warehouse entry, etc.). Therefore, the low loss rates for some of the private stocks would prove the capacity of the CAE warehouse prototype to store potato for 4 to 5 months with very little loss (5 to 9%), but with the condition that the product at warehouse entry be of high quality.

Despite relatively high loss rates, the activity was fairly cost-effective for the two groups. For example, the operating account (cf. Table 1) of the Sabénébougou group indicates that the group made a gross profit of more than three million FCFA. It is worth noting that this figure does not take into account all of the operations costs (for example, the labor costs).

Moreover, gross profits appear to be very high as a result of higher sale prices for the stocks after storage. Most of the group stocks were sold at 225 FCFA/kg, compared with a purchase price of 120 to 130 FCFA/kg.

These results and the loss rates recorded in the CAE storage warehouse prototype allow for validation of the test performed over this building. In-depth analyses of the operating accounts of the two groups will be conducted in Year V as part of the preparation of a user manual for the warehouse.

Table 1: Sabénébougou Group Operations Account

DESCRIPTION OF THE COSTS	UNIT PRICE (F. CFA)	QUANTITY (Kg or liters)	TOTAL (F.CFA)
OPERATION COSTS			
Potato purchase		37500	1,842,225
Anti-germ purchase	50000	5	250,000
Repairs on storage boxes			32,000
TOTAL COSTS			2,124,225
INCOME FROM THE ACTIVITY			
Income from 1st quality potato sales	225	20483	4,608,675
Income from 2nd quality potato sales	150	3913	586,950
Income from 3rd quality potato sales	65.65	1543	101,298
TOTAL INCOME			5,296,923
GROSS PROFIT FROM THE ACTIVITY			
INCOME - COSTS			3,172,698

Source: CAE

In addition to storage activities in the CAE warehouses, individual producers in eight of the ten villages received support for individual storage with boxes in their own warehouses (improved or traditional). Table 2 indicates that these producers were able to sell 42,618 kg of potato at 225 FCFA/kg in Sikasso and Bamako. These individual farmer stocks were stored in March-April, when prices were 130 FCFA/kg. Sales were exclusively carried-out in June 2002, or 3 to 4 months after storage.

Table 2: Quantity of Potato (individual stocks) Sold per Village in June 02

Village	Quantity sold	Sale price (f.cfa/kg)	Destination market
Bogotière	4736	225	Bamako
Sabénébougou	14123	225	Bko, Sikasso city
Bambadougou	2662	225	Bko
Socourani	648	225	Bko
Diakorola	3328	225	Sikasso city
Zanikodougou	6319	225	Bko, Sikasso city
Famakourani	5142	225	Bko
Faté diassa	5660	225	Bko, Sikasso city
Total quantity sold	42618		

Source : AMATEVI activity report

Collection and dissemination of potato price information

Potato price information collection and dissemination activities, started during Year III with the Observatory of Agricultural Market (OAM), were pursued during Year IV in order to reinforce the negotiation power of potato producers for the transactions.

Table 3 indicates the number of weekly information broadcasting for all locations in January and September 2002.

LOCATON	ANTICIPATED BROADCASTING	BROADCASTING ACHIEVED
Bamako	43	79
Ségou	43	40
Sikasso	43	40
Kayes	43	80
Mopti	43	38
Tombouctou	43	78
Gao	43	40
Kati	86	80
TOTAL	387	475

Source : OAM monthly reports

Early in this year, we received request for support to develop a business plan for a company called INTERAGRO which is already active in potato seed exports. This enterprise, through this business plan, wishes to diversify its activities in the potato sub-sector. The main objective of the project is to promote the production of “bio” potato, meaning potato produced using organic fertilizers.

To achieve this, in addition to supplying seeds, the company is planning to distribute, either on credit or cash, agricultural equipment to farmers who wish to grow bio potato. At harvest, the company guarantees that it will purchase the entire production of its partner farmers and then export the product. The business plan document is presently in the phase of preliminary study.

Moreover, village group leaders have been informed about the availability of financial products at the BNDA agency and at Kafo Jiginew, which would help them conduct potato marketing activities. According to village group leaders and considering the current level of organization of the groups, it was deemed premature to engage such young associations in potato marketing operations using bank credits. Better organized groups such those in Bogotière and Sabénébougou preferred conducting this operation using their own funds.

- C. Support to potato professional associations and efforts for institutional organization of the sector

Continuation of the organization of the ten professional groups in collaboration with NGO ACOD

Under its sub-contract, the NGO ACOD pursued its efforts, from April to September 2002, to structure the ten village groups established in Year III. To this effect, it carried-out the following activities:

1. Organizing workshops to develop three-year development plans and action plans for year 2002;
2. Support to start-up of the process for official recognition of some of the groups.

• Organizing workshops to develop three-year development plans and action plans for year 2002

ACOD provided assistance to members of each group in the development of its three-year development plan. This consisted in helping the leaders of each group identify problems they encounter in the production, storage and marketing of potato, analyzing these problems and proposing solutions over a three-year period.

It should be noted that the three-year plans were developed taking into account the duration of the production/marketing campaign, which starts in July and ends in June of the following year. In general, the three-year plans have the following objectives:

- To improve the input (fertilizers and seeds) and small storage material (boxes, etc.) supply conditions for group members;
- To provide the groups with adequate infrastructure and equipment for storage (improved warehouse, boxes);
- To promote potato cultivation during the rainy season;
- To promote marketing by the group in order to generate incomes;
- To diversify income generating activities.

Following development of the three-year plans, each group held a general assembly meeting to validate its plan. During these meetings, the plans were submitted for discussions, approval and adoption by the members. Discussions in each village allowed board members to present the draft versions of the plans which were amended by attending members in certain cases.

The document thus adopted at the level of each group will serve as an action plan for the development of activities during the next three campaigns, i.e., 2002-2003; 2003-2004; and 2004-2005.

Support to the process for official recognition of some of the groups

In addition to supporting the development and validation of the three-year plans, ACOD assisted some of the groups on a voluntary basis with administrative procedures for their official recognition by supervisory authorities. This support, which essentially consisted in providing counseling and guidance to group leaders and providing them with information about the documents to be submitted in order to request official recognition, was provided to four of the ten groups: Sabénébougou, Bogotière, Gnagansoba and Gniétiorobougou.

Animation of the consultation forum for potato in Sikasso

As part of our activities for improvement of the agribusiness climate, CAE provided financial and technical support from April to September 2002, for the organization of a series of workshops for the potato *Steering Committee* in Sikasso in order to better analyze the constraints confronting the three segments of the sector (production, storage, marketing). Four workshops were held and resulted in the development and adoption of an *Action Plan* for promotion of potato production in Mali.

It should be noted that the potato Steering Committee, initiated by government support institutions (DRAMR, CMDT) in collaboration with BNDA and APROFA, aimed at the sole objective of organizing the supply of inputs (seeds and fertilizers) at the beginning of the campaign for potato producers in Sikasso. The Committee did not address the problems in other segments, such as storage and marketing. In order for the Committee to fully play its role, it should consider all of the constraints that hamper the promotion of this sector in Mali.

Having made this observation, CAE proposed to other members of the Committee in December 2001 that it be transformed into a *Consultation Framework* which would take into account all three segments of the sector. To achieve this, it was decided that an *Action Plan* should be developed through a series of workshops bringing together all actors in the sector.

The first workshops provided opportunities to discuss the following themes in details:

1. The issue of supplying producers with inputs (seeds and fertilizers);
2. Strategies for support to potato producers;
3. Strategies to improve potato marketing from Sikasso.

The following attended the workshops:

1. Delegates (about twenty) of the producers from Sikasso, Office du Niger and OHVN areas;
2. Representative of support institutions: DRAMR, CMDT, DRAER, DGRC;
3. Representatives of partner projects: CAE and APROFA;

4. NGO representatives: AMATEVI and ACOD;
5. Representatives of banking institutions: BNDA and Kafo Jiginew;
6. Representatives of input suppliers: Sikassoise, Interagro and Somafert;
7. Representatives of the Observatory of Agricultural Market; and
8. Commercial intermediaries: Mali Yiriden and village collection agents.

In terms of results, the animation of the Consultation Framework on potato helped CAE to restore dialogue between various actors in the sector (producers, input suppliers, banks, support institutions and merchants). Another result, and not the least, is that discussions led to in-depth analysis of the major constraints that hamper promotion of potato cultivation, storage and marketing in Mali.

Besides each thematic workshop, an ad-hoc commission met to discuss the constraints identified in order to propose solutions. A final summary workshop, held in September 2002, approved the results reached by the ad-hoc commissions and validated the proposed three-year Action Plan. Implementation of this action plan over the period November 2002 through December 2005 should mainly result in the following:

1. Establishment of an adequate Consultation Framework to replace the Steering Committee and which will comprise all actors in the sector;
2. Establishment of a risk management center among the banks, input suppliers (seeds and fertilizers) and producers, in order to secure credit for input supply. The need for such a Center was felt by the banks and input suppliers in order to exchange information about financial products available with the financial institutions, the status of village credit reimbursement and, above all, to avoid over-indebtedness of the producers;
3. Establishment of a database on the sector;
4. Review of input supply procedures;
5. Improvement of the strategies for support to producers and merchants;
6. Promotion of storage facilities;
7. Commercial information collection and dissemination;
8. Conducting market prospects, studies and tests.

As a logical consequence of this activity in Year IV, the Centre is proposing, under its Year V work plan, to follow-up the beginning of the implementation of the action plan, in collaboration with other key-actors such as DRAMR, CMDT and APROFA.

2.2.2. Search for new opportunities for Shallot

1. Search for new opportunities for fresh shallot in Niono

Support for Management of the Foabougou Warehouse

This support concerns capacity building among the 133 women organized for the management of the 100 ton capacity warehouse prototype in Foabougou. For the sake of work organization, the prototype is divided into five compartments of twenty tons each.

Operational Objectives

To create necessary conditions for proper operation of the shallot storage warehouse prototype built by CAE in the Office du Niger area. Specific operational objectives included management capacity building for leaders of the five women groups organized around the five compartments, validation of the technical characteristics of the prototype and facilitating access to financing for the beneficiaries so they can fill the warehouses with shallots.

In order to build management capacity of the Djanto Yéréla women's group, the training sessions conducted by the consultants addressed the following themes: assessment of the potentials; training for members of the warehouse management committee in the concepts of management, production factors and respect for common properties; awareness-raising about cultivation techniques that foster better storage of the shallot; and marketing. All 133 women of the group attended, at least partially, the above mentioned training modules.

After these series of training/awareness-raising sessions, the women purchased 77.806 tons of shallot to be stored in the warehouse, while respecting quality standards at entry. The tasks were shared between various members of the five groups for stock handling and management. The difference between the quantity planned for (100 tons) and the quantity actually stored (77.8 tons) may be explained on the one hand by the purchase of shallot at higher price than the 100 FCFA/kg anticipated and, on the other hand, problems of poor resistance of the riddles to support the load of shallot stocks.

In the perspective of validation of thermohygrometric performance of the warehouse, the energy specialist in charge of the follow-up provided the IER consultants with tables that helped collect the temperature and humidity rates three times a day. Once filled-out, these tables facilitate regular monitoring of temperature variations recorded in the warehouse.

Since February, CAE has been facilitating access to marketing credit for Foabougou women. In fact, based on a price of 100 FCFA per kilogram, the women needed 10 million FCFA to purchase 100 tons of shallots. FCRMD made this amount available to the women with the condition that CAE provide a savings deposit for guarantee amounting to 20% of the requested amount, or 2 million FCFA. The credit was provided with an interest rate of 2% per month, starting in April 2002.

Guiding lines for next year

During the first year of operation of the prototype, CAE provided assistance to the women's group organized around the warehouse. This follow-up allowed CAE on the one hand to correct the defaults observed on the warehouse and, on the other hand, to provide training/awareness-raising to women about the management of a large capacity warehouse for shallot storage.

Two main lines of intervention are agreed-upon for Year V of the project:

- establishment of a flexible stock monitoring system through a technical partner, coupled with the re-conduction of the guarantee savings deposit for FCRMD in order to facilitate filling the warehouse;
- development of a program of repairs for 30 Retail-type huts to make them more appropriate for storage.

2. *Support for the marketing of dry shallot slices (Echalote Séchée en Tranche - EST)*

Operational Objectives

To create proper conditions for the development of business between dry shallot slice producers and the wholesalers identified during the marketing test in Guinean, Ivorian and Bamako markets.

Results achieved

The strategy adopted for the reinforcement of relationships between wholesalers who confirmed their interest for EST marketing and the producers, is to foster direct exchange between the two parties. In this sense, activities were conducted, on the one hand, to pay a commercial visit by the producers to the target markets and, on the other hand, to improve institutional relationships between CAE and the Wholesale Market in Bouaké with the purpose of improving the representation of Malian agricultural products in Côte d'Ivoire.

Therefore, from January 21 to 27, 2002, a mission composed of three producers, one village animator, one staff member of the PRECOB/CLUSA Program of NGO SABA and the head of the SLACAER, visited the *Marché de Gros de Bouaké – MGB* (Bouaké wholesale market) to meet with wholesalers who had expressed interest for the EST. As main result, this mission revealed the need for promotional support to this product so that it may be integrated into the food habits of the Ivorian people. Knowing that the organoleptic quality of shallot is well-appreciated, two distribution channels may be exploited: through purchase centers in the supermarkets, with certain conditions (bar code on the packaging, utilization of polypropylene packaging) and through two wholesalers identified in the MGB.

In addition, a CAE mission visited the MGB from July 9 to 13, 2002. This mission, composed of Mr. Harvey Schartup (CAE Director), Mr. Moctar Boukanem (Responsible for the shallot sector) and Mr. Mamadou Camara (Coordinator of the SABA/PRECOB Program) held working sessions with the managers of the market and with wholesalers established in this market. These meetings discussed about the opportunities to establish in Bouaké an agribusiness unit to be responsible for the promotion of Malian agricultural products in Côte d'Ivoire. The wholesalers met by the mission in the MGB suggested

that production of the *Violet Galmi* be encouraged in the Office du Niger area in order to better respond to the demand of Ivorian consumers.

Guiding lines for next year

During Year V of the project, CAE will reinforce its collaboration with NGO SABA with the objective of building production and management capacities among 24 EST producer groups. In order to improve access to financing for these groups, a business plan for each group will be developed and supported for the 2003 marketing campaign.

3. *Producer training*

Operational Objectives

- To continue awareness-raising/training of EST producers in Production and Hygiene Best Practices (BPPH);
- To train five women's groups organized around the warehouse prototype for shallot storage in the management of high capacity warehouse and in the enforcement of harvest technical itineraries for quality storage.

Results achieved

The training of EST producers in the BPPH took place from December 29, 2001 to February 10, 2002. 1318 trainees from 39 villages participated in these series of training sessions. The training internal evaluation mission which visited Bandiagara from May 6 to 9, 2002 concluded that trained producers had acquired drying procedures which guarantee products with an organoleptic quality desired in the market. However, constraints to the application of skills acquired include the relative weakness of funds provided by BNDA and the limited number of cutting tools and riddles.

The training of Foabougou women in the management of a large capacity warehouse and in the harvesting technical itineraries for high quality storage was conducted by consultants from the CRRA in Niono as part of the follow-up activities for the prototype. All 133 women participated in this training. Details are provided in chapter 1.

Guiding lines for next year

Work Plan V envisions to reinforce the skills acquired through training on the themes of management and high quality shallot production for storage in Foabougou. A flexible intervention program will be conducted by CAE in collaboration with a technical partner specialized in the training of village groups.

3. *Revival of the consultation framework on shallot*

Operational Objective

To create adequate conditions which allow various actors in the shallot sector to get together and discuss the status of the sector. These discussions should lead to the development of an action plan to address various constraints which hamper normal operation of activities in the sector.

Results achieved

CAE agreed in principle to support Office du Niger in the organization of a small-scale stock exchange for market-gardening products. This forum should provide an opportunity for various actors to discuss about the status of the sector. Problems related to financing of the activity urged the organizer to post-pone the small stock exchange to year 2003.

Guiding lines for next year

CAE will participate in the discussions about various themes being currently discussed among actors in the sector. These themes include “the harmonization of activities carried-out by various actors in the shallot sector” and “organization of a small stock exchange”. Results achieved by the workshops on these two themes will provide the content for establishment of a permanent consultation framework.

Lessons learned

1. Establishment of a consultation framework requires preliminary discussions between various support institutions in order to ensure uniformity in the definition of this instrument. Without such an approach, it will be very complicated to mobilize the actors for implementation of this activity.
2. It is confirmed that the promotional approach for a product in a new market requires sustained and strong financial efforts. The results of this approach are not perceptible if activities are limited to market prospects, commercial visits and sending samples.

2.2.3. Search for new opportunities for Mango

To ensure sustainability and explore new opportunities for fresh and dried mangoes.

1. *To introduce the concept of contract in the exporter-producer rapport*

Operational Objective

The objective sought is to guarantee regular supply of mangoes for the conditioning stations by encouraging exporters and producers to undertake activity planning for shipments during the export campaign. In fact mango shipments that are not planned for

by the European importers-wholesalers are difficult to sell in the markets, which are becoming more and more competitive.

Results achieved

In the implementation of this activity, it was envisioned to recruit a lawyer specialized in business law and who has a good knowledge of the realities of the rural milieu. As it was not evident that such expertise would be locally available, it appeared more relevant, in common agreement with exporters, to raise awareness among producers about the requirements of the European markets. This was achieved through training modules targeting on-farm buyers and conditioning station workers.

Guiding lines for Year V

It is not envisioned to re-conduct a support activity for professionalization of the exporter-producer rapports during Year V. However, in response to a request from an exporter, support will be focused, on the one hand, on the formalization of transactions with various partners and, on the other hand, the development of his business plan to be submitted to a financial institution.

2. *Support to exporters*

Operational Objective

The objective of this activity was to assist exporters ship high quality mangoes through provision of adequate conditioning inputs. These inputs (boxes, plastic washtubs, trans-palettes, strap kits and stickers) will help improve the presentation of export mangoes and to facilitate work in the conditioning stations.

Results achieved

Three companies benefited directly from CAE support: Flex Mali, Mali Primeurs and Mali-Bio as they received 54,500 boxes, 1,950 plastic tubs, 2 strap kits and 2 trans-palettes. The first two companies, Flex Mali and Mali Primeurs, are two of the four promoters of the Dogon trademark supported by CAE. They are the two most important export companies of Malian mangoes with respectively 209 tons and 125 tons exported in 2002.

Mali-Bio is a newly established company governed by Malian law. It is specialized in the export of biological mangoes. CAE, through its support to this company, wishes to support the promotion of the biological mango production and export in Mali.

Guiding lines for Year Five

Inputs that are not directly consumed, including the trans-palettes, tubs and other small equipment, will be made available to exporters who will solicit CAE support.

3. *Moroccan and Egyptian Market Prospects*

Operational Objective

This activity will allow CAE to prospect the Moroccan and Egyptian markets for Malian mangoes.

Results achieved

The 8th Pan-African Commercial Fair held in Cairo from April 22 to 30, 2002 provided an opportunity to prospect the Egyptian market for Malian mango sales. CAE facilitated the participation of Fruitex in this event with one ton of *Amélie* variety mango. The main lessons learned from this prospect include the following:

- the introduction of mango in Egypt is subject to a special authorization, particularly those coming from such countries as Mali, which experience infestation by fruit flies;
- the demand for mangoes in the Egyptian market concerns highly flavored fruit, a characteristic of Indian varieties;
- the mango production campaign in Mali (March-June) is favorable for exports towards Egypt, since local production does not coincide with this period.

Samples were sent to the Moroccan market. The importers contacted reaffirmed their interest for Malian mangoes. However, prices in the Moroccan markets are not enough to ensure cost-effectiveness of a freight cost of over 700 FCFA per kilogram.

Guiding lines for Year Five

In order to confirm data collected in the Moroccan market, contacts will be pursued with Royal Air Maroc to determine a sustainable freight cost for Malian exporters. Once this pre-requisite is settled, a commercial mission will visit Morocco in order to better understand the regulation and distribution channels.

4. *Price monitoring in export markets*

Operational Objective

To establish a mechanism for price monitoring in the main destination markets for Malian mangoes. This device will fill a void left by the disruption of price information dissemination by COLEACP which benefited Malian exporters.

Results achieved

For implementation of this activity it was envisioned that CAE and APROFA would co-finance establishment of the mechanism. In practice, no sustainable financing mechanism for such a system of price information collection has been decided, hence the non-implementation of the activity.

Guiding lines for Year Five

Work Plan V does plan for the establishment of a device for information collection and dissemination about specific prices in certain European markets. It has been agreed that the ITC information system would be used to inform exporters about prices in the target markets.

5. *Training of on-farm buyers and conditioning station workers*

Operational Objective

To train 100 on-farm buyers and non-permanent workers of conditioning stations in the following modules: harvesting and on-farm conditioning techniques; professionalization of work in the conditioning enterprises.

Results achieved

- 71 on-farm buyers received training in harvesting techniques and transportation of mangoes from the farm to the conditioning station;
- 25 tailored assistance sessions were organized in 5 conditioning stations. The themes of these assistance sessions included the following: Marketing and product quality; quality control; traceability; product quality and handling; the hygiene system for the station and the hygiene system for the station workers and visitors. A total of 23 permanent or daily station workers received training during these 25 assistance sessions.

Practical training similar to the above mentioned sessions resulted, on the one hand, in the improvement of the quality of export mangoes and, on the other hand, in the re-organization of work in the conditioning stations. The quality improvement was perceptible as soon as the trainees enforced the counseling they received. Thus, according to interlocutors in the destination markets, quality improvement is seen with mangoes imported from Mali during the past two years: overall good condition of the box, adequate presentation of the mangoes in the box, homogeneity of mangoes belonging in the same lot, etc.

Guiding lines for Year Five

Work Plan V does not envision training for on-farm buyers and conditioning station workers. CAE will privilege the replication of skills acquired among actors in the field.

6. *Business management training for conditioning station managers*

Operational Objective

In order to improve the capacities of actors in the mango sector, it is envisioned that conditioning station managers and accountants should be trained in management.

Results achieved

Specific modules for the management of a mango export station were developed by a consultant trainer, member of the REFOGEM, Mr. Abou Berthé. The modules include the following: SYSCOA Accounting system, Management Control, Financial Analysis and management dashboard. The training plan includes class-room training for 6 days.

Guiding lines for Year Five

The training sessions will be organized during the first quarter of Year V, targeting conditioning station managers and/or their accountants upon their request. Ten existing companies have already requested participation in the training.

7. *Collaboration with IER for continuation of a fruit-fly control program*

Operational Objective

To encourage IER to finalize the study initiated by CIRAD (with CAE financing) for the definition of a method of integrated management of fruit fly.

Results achieved

Despite assurance provided by IER about their interest in the program in question, no action has been taken to achieve progress in this activity.

Guiding lines for Year Five

Awareness-raising will be pursued during meetings with IER so that they start the pre-extension phase of the study.

8. *Technical assistance for establishment of the industrial mango drying unit*

Operational Objective

To provide support for the establishment of the industrial mango drying unit.

Results achieved

The industrial unit, whose promoter is Mr. Coulibaly, obtained agreement in principle of BICIM to finance the activity. This agreement in principle was obtained as a result of CAE support for development of the project document and also as a result of the guarantee offered by the USAID DCA fund deposited at BICIM. However, hesitation of the promoter as to the opportunity to invest or not in this sector did not allow for start-up of the activities under Work Plan IV.

Guiding lines for Year Five

Support for the start-up of the activity for industrial drying of mango is re-conducted as an activity under Work Plan V. This activity will be further detailed after installation of the unit.

2.3. Search for new opportunities for cereals

This section presents the results of activities carried-out during the period October 2001 to September 2002 by the programs about cereal sectors of the Centre Agro-Enterprise. Activities conducted during the period covered by the fourth work plan are centered on the improvement of cereal product processing and marketing. The products concerned by support to promoters include the following: rice, maize and millet/sorghum.

During previous years, CAE conducted technology demonstration and marketing tests for rice and maize. This strategy has been agreed-upon essentially to establish certain technical and economic references that would help guide future promoters in their choice of adapted investment, as well as the dissemination of qualitative and quantitative data about the marketing of processed products. These qualitative and quantitative data collected and processed were used for permanent counseling-support activities provided by CAE under Work Plan IV.

One may note that changes desired in the implementation of tests are illustrated by the demand for CAE services to prepare a dozen business plans for the processing and marketing of cereal products. The adoption of production best practice in order to sell products that meet basic requirement of the demand, constitute the main results of this activity. Thus, in the case of rice, there have been new initiatives for the installation of small-scale husking unit using the model of improved diagram through compact-type small flour mills proposed by CAE. Rice produced through these systems received high demand in market segments that are quite demanding about the market value appreciated through quality criteria such as cleanliness, homogeneity, whiteness, the rate of broken grains, etc.

In the case of maize, substantial improvements were obtained through adaptation of the milling diagram used by flour mills in the CMDT area in Koutiala. The flour mills received support from the NGO Afrique Verte to reinforce their distribution network. The support consisted in establishing relationships with clients who received financial support from the NGO through access to marketing credit.

As for the rice marketing component, in collaboration with a professional merchant organization (CONOESAM) and other programs working in this field (Office du Niger, OAM/PASIDMA), a market prospect mission was conducted in the sub-region. The mission visited three countries (Côte d'Ivoire, Burkina Faso and Senegal) to better determine opportunities for the sale of Malian rice and to establish business relationships with cereal merchants.

Collaboration and partnership are taken into account through various exchanges with support institutions that are working to reinforce the cereal sector in Mali and in the sub-region. Consultation with implementing partners facilitated, in several cases, maintenance of an approach in the selection of solution to address some of the constraints to the development of the sub-sector supported through our programs.

Regarding the mobilization of financial resources, NGO Afrique Verte contributes in the capitalization of skills acquired through various CAE tests on the cereals. The NGO self-financed (funds raised by Headquarters in Paris) marketing activities with CAE test sites (high quality rice and germ-less maize) through a micro-credit component designed to finance the Revolving Fund of Marketing Cooperatives and Women's Associations. The credit lines amounted to 32 million FCFA with the savings clubs Kondo Jigima in Bamako and Niako and PASECA in the region of Kayes. Afrique Verte provided support to the farmer organization Jeka Fere in soliciting ADF assistance in to implement a project for rice processing and marketing. ADF agreed to provide financial support for this project in the amount of 129 million FCFA.

2.3.1. Search for new opportunities for rice

The activity components considered for cereals were delayed in comparison with initial programming under Work Plan IV. Nonetheless, major activities such as counseling-support and information dissemination were carried-out by receiving clients at the office and through a few field visits in Ségou, Niono and Mopti. The final assessment of the tests conducted in Niono for improvement of the quality of rice was completed in order to obtain technical and economic references to be made available to our clients who wish to invest in valorization activities through small-scale processing.

During the period covered by this report, various follow-up missions helped determine the trends in the sites which operated in an autonomous way this year. The goal was to determine and assess their capacity for assuming ownership of the equipment provided by CAE for technology demonstration tests for rice.

The team also made efforts to support promoters in the development of their business plans and, particularly the dissemination of demonstration test results. In other cases, efforts were centered on experience sharing and collaboration with other projects which would like to inspire from experience and lessons learned from promotion activities as part of rice quality improvement and the development of internal and sub-regional markets. With partners from other support programs and projects, emphasis was placed on collaboration to achieve synergy in our activities.

There have been frequent exchanges with PACCEM and Afrique Verte on marketing issues. OAM, PASIDMA and Office du Niger were solicited to help with preparation of our missions for sub-regional market prospects for rice. In other cases, we were solicited to share our experience in the field of paddy rice processing, mainly by ADF and CARE-Mali.

1. Dissemination of the results of tests conducted during previous years

Operational Objectives

Introduction and discussion with consulting firms, partners and investment project idea bearers about technical and economic references developed and market opportunities identified.

Results achieved

Demonstration tests: processing technology and marketing

With sub-contractors, we took action to validate results of the test on rice and maize. For technological aspects, proposals for adapted production diagrams were approved. Details were provided about the characteristics of equipment that help improve productivity levels and obtain products that meet market expectations.

The characteristics of products were determined based on the requirements of various market segments. The main criteria to meet, relating to cleanliness and homogeneity of products are recorded through marketing tests conducted. Technical data sheets and precise guidance may be provided by CAE technicians and by the sub-contractors who actively participated in the implementation of various components of the tests. For example, Nyeta Conseil for technical and technological aspects and Afrique Verte for the marketing component, notably for the establishment of commercial relationships.

Result of the technology selection

The entire technological information collected during the tests were discussed through workshops with the concerned actors and through meetings organized in Niono. This information is regularly made available to the promoters and other projects such as PACCEM, CARE-Mali and ADF, which are interested in undertaking similar activities. The first beneficiaries are the consulting firms and individual promoters who solicit our

counseling-support to inform their choices and investment decisions for cereal processing in general.

For the establishment of small-scale production enterprises, we would approve in the case of rice, fixed investments of about 15 to 20 million FCFA for an annual capacity of 500 tons of processed rice.

Thus, during assistance missions in the regions of Mopti and Ségou, working sessions were held to discuss issues related to the introduction of technologies with Office Riz Mopti and CARE-Mali's field office. With Office du Niger, mainly in Niono, private promoters who were highly interested in establishing paddy rice husking units received support for the development of their business plans.

This is true for technical and economic analyses completed for mobilization of funding for ten rice husking units for the JEKA FERE Federation (which received assistance from Afrique Verte). During the preliminary assessment, the technical and economic references developed during the tests were used to confirm technical and financial analyses. This approach initiated by Afrique Verte helped obtain agreement in principle from ADF (African Development Foundation), to provide financing up to 129 million FCFA. ADF has agreed to finance this project up to 80 million FCFA which will help establish 10 processing units (in fixed investment to be reimbursed over a period of 4 years) and to provide operational technical assistance for capacity building within the organization (which is receiving financial support through a grant of 49 million FCFA).

Thus, various alternatives were explored to help with technology selection based on adaptability to the conditions of the industrial environment and on the financial capacity of interested promoters. At the current stage of the activity, the Centre is capable of providing various information to future promoters about technical proposals that integrate various parameters for the selection of a technology for rice husking. This information concerns production cost simulations, from the handicraft stage to the industrial level and large-scale combinations that correspond to the concept of small-scale flour mill, upon which the Centre places particular emphasis as a solution for valorization of rice in Mali.

Considering financial constraints promoters are confronted with, emphasis was placed on the aspect of coupling a well-performing screen locally manufactured with the small-scale husker system, particularly since importance is given to the granulometric homogeneity when assessing the final quality of rice. At the level of a small-scale husking unit, the machine may allow for screening of about 500 to 750 tons per year, depending on the variety of rice.

Through various requests for business plan development and technological information research, the references of the test for improvement of the quality of rice are utilized. Users of the result include consulting firms and individual promoters in search for financing to establish or extend their activities.

A dozen business plans completed or under development used the operating income data of Niono test sites as reference. Five project documents to be submitted to banks are presented for fund raising.

Results of the Establishment of Commercial Relationships

This activity consisted in providing commercial promotion support to merchants who sold rice processed by the four paddy rice husking sites.

Local market

Analysis of market segments that were prospected at the national level confirms the existence of solvable demand for first quality rice. The quantity at stake is estimated at 10,000 tons of whitened rice (demand from wholesale merchants for full grain and broken grain rice).

Because of the high demand expressed at the testing sites monitored by CAE, they produced practically in continuous flow.

Improvement of the quality is expressed in relation with the price difference (quality premium) which ranges between 15 and 25 FCFA for rice sold on the sites in comparison with market prices for unscreened rice (DP).

Implementation of the test for improved processing practice, through partial modernization of processing tools, constituted a successful stage in awareness-raising among actors on the stakes of adaptation of the techniques. The impact on the marketing approach and increased sale volumes for products that comply with market requirements is positive. The results of the tests were very encouraging as to the perspectives for promotion of sales through establishment of adapted small and medium size processing units to meet the requirement of the demand for standardized products.

Sub-regional markets

Working sessions were held with the OAM, PASIDMA, Office du Niger and CONOESAM. These institutions contributed in the preparation of sub-regional market prospect missions for rice (in Côte d'Ivoire, Burkina Faso and Senegal). These missions aimed at establishing contacts with cereal merchants in the targeted markets and to assess business opportunities to be identified.

This market prospect for rice, conducted by CAE and CONOESAM, helped identify high demand and considerable consumption of rice. For luxurious rice, the quantity is estimated at 110,000 T per year for the four markets that were prospected. For the semi-luxurious rice segment (containing 5 to 15% of broken grains), consumption is estimated at 900,000 tons. High competition in the prospected markets will require the development of an appropriate commercial strategy.

Under the next Work Plan, interventions will be focused on the following main lines:

1. dissemination of information about technical and economic references for the small-scale flour mill system and the utilization of better performing equipment;
2. mobilization of investment resources (technical assistance for technology selection and financial assistance for intermediation with credit institutions);
3. continuation of sub-regional missions and the dissemination of information collected with merchants, processing entrepreneurs and other partners (the results of the missions will be discussed with all partners: OAM, PASIDMA, ON and promoters in rice processing and marketing).

2. *Technology and enterprise development*

Operational Objectives

- To conduct exploratory missions and information meetings;
- To identify promoters/projects;
- To follow-up testing sites;
- To provide counseling-support to project promoters for technology selection.

Results achieved

Results presented by sub-contractors following various tests conducted since 1999 were deemed very positive by the direct beneficiaries. The achievements of the test will be capitalized and will be supported with the following measures:

- enforcement of production best practice and introduction of improved diagrams in order to maintain the same product quality achieved during the test (including continuation of packaging improvement: sachets and bags);
- meeting the requirements (regular supply in quantity and quality) of clients, mainly merchants who expressed interest for the sale of products in other regions;
- developing contract establishment with producers to ensure adequate supply in high quality raw materials;
- Taking into account the promotion component for the products (multi-form support for rapid implementation of elements proposed by the test in terms of advertisement and information for partners support projects).

In this regard, the CAE technical team is endeavoring to inform the promoters who requested assistance for their investment decisions, taking into account the necessary modernization of processing tools and the adoption of production and marketing best practice.

Over twenty assistance requests are under review, including fifteen business plans completed or in the completion phase. Investment levels ranging from semi-industrial to industrial require investments exceeding 3 million FCFA for the establishment and/or extension of processing and marketing activities.

At the current stage, there is still need to place particular emphasis on the adoption of better performing production systems, as a future way for market development. In this context, all efforts in terms of product improvement will depend on the availability of financial resources and easy access to these resources.

In order to take this concern into account, an information workshop was conducted in Niono, targeting private promoters in the field of rice cultivation and paddy rice processing, so as to introduce to CAE approaches to investment promotion. The following themes were discussed:

- Information to promoters about various technological levels for rice processing;
- Information to promoters of groups, associations or cooperatives in the rice sector about available financing opportunities at the sub-regional level, which are adapted to their needs and about the intervention methods of these institutions;
- Discussion of new investment perspectives by the emergence of new entrepreneurs at Office du Niger;
- Discussion of supporting measures that are likely to facilitate access to financing for small and medium enterprises.

CAE should continue its counseling-support approach for consulting firms and other project partners. Discussions and guidance concern the selection of technologies that are adapted to the milieu and the capacity (technical and financial) of the users.

Direct results from the demonstration sites

Rice Testing: During this campaign, these sites operated autonomously. Analysis of the situation reveals some disparities among the sites, regarding their management and production capacities. Difficulties that were already identified (lack of spare part supply, frequent maintenance) may have increase the gap between various sites, depending on the dynamism of the managers to address technical problems and find alternative solutions.

Problems related to after-sale services (difficulties in supplying spare parts) remain limiting factors. Despite this negative factor, the demand for high quality product remained constant all over the campaign. At the sites equipped with compact husking machines, more than 3,000 tons of paddy rice were husked, with an average processing yield of 64%, or over 2,000 T of processed rice sold.

At the level of screening, the quantities are lower, with less than 5% of sales for the 100% full and white grain category of rice. The mixed rice proposed by the sites is assimilate to the RM40 by the merchants who prefer to sell it directly in this condition without requesting further grading.

The paddy rice husking unit (GDCM) established in Ségou has received counseling-support. During this second year of production, 9,000 tons of paddy rice were processed and 6,000 tons of processed rice were sold.

Guiding lines for Year Five

The process of generalization, continued and sustainable improvement of this approach for introduction of processing best practice may be confronted with constraints that will require supporting measures, mainly in terms of investment promotion policy for small and medium enterprises. Strategic decisions to be made immediately to encourage this process should be centered on the following, among others:

- Reinforced technical assistance to new processing units to address all pending issues related to the adjustment and proper operation of the equipment, best practice for preventive maintenance, spare parts supply; follow-up for pending documents for fund raising, particularly those from the JEKA FERE group which are under review with ADF;
- Promotion of an integrated program (technical and financial), to facilitate the installation of adequate equipments for promoters;
- Establishment of adapted financial products to encourage innovation and adoption of best practices for paddy rice processing.

3. *Adapting to the stake of quality*

Operational Objectives

- To raise awareness among processing entrepreneurs about the commercial importance of quality products and the adoption of production best practices;
- To identify resource-persons in order to address issues related to quality management for cereals;
- To train actors on themes related to quality management.

Results achieved

It is compulsory to take into account the quality dimension for the products. Activities to be carried-out are essentially for awareness-raising and training. Efforts to explain the approach are initiated with Office du Niger in the case of rice. Therefore, there is need to implement, as soon as possible, the training and information sessions envisioned on the theme of quality management for paddy rice processing activities. The target population includes staff from support institutions for rural counseling and paddy rice producers and processing entrepreneurs.

To this effect, based on the needs of the two target groups, the training modules will address the following themes:

It is envisioned that 15 rural counselors (Office du Niger workers) and 55 private promoters (paddy rice producers and processing entrepreneurs) will receive training.

Close collaboration has been undertaken with the Food Technology Laboratory (LTA/IER) and with the Direction Régionale de la Réglementation et du Contrôle for agricultural products, in order to successfully implement these training sessions.

At first, training sessions that were initially planned for, but could not be delivered, will be conducted. Launch of new activities under the work plan will be shortly considered, mainly for the “Support to organization of collective activities” component, through establishment of information and awareness-raising tools, inter-professional consultations, the enforcement of consensual norms and organization of rice promotion campaigns by the professional organizations.

Below are the results achieved by CAE through implementation of the “Test for Rice Quality Improvement in the Office du Niger Area” as part of efforts for improvement of product processing and marketing, to help achieve the objectives of creating value added and achieving competitiveness:

- √ The interest of processing entrepreneurs to further modernize paddy rice processing practices was confirmed through various requests for new and better performing equipments;
- √ This is also demonstrated through requests for assistance to develop business plans and to obtain various information about the technical and economic references for paddy rice processing;
- √ Quality improvement aroused enthusiasm among the merchants. The quality premium is estimated at 15 to 25 FCFA/kg and assessed through increased sales.

2.3.2. Search for new opportunities for Maize

The most important activity consisted in identifying alternative solutions to adapt small-scale maize processing technology. Counseling-support and information dissemination were pursued in this respect by receiving clients at the office and through a few field visits in Koutiala. The final assessment of the technology demonstration test conducted in Koutiala for maize germ-removing was completed. The program helped obtain technical and economic references to be made available to our clients who wish to invest in maize valorization activities through small-scale processing.

Support from the NGO Afrique Verte for marketing issues, helped pursue assistance to flour mills in the CMDT area in Koutiala. This contribution in capitalizing on the initial results of the test resulted in the establishment of a self-financed (funds raised by Headquarters in Paris) credit line. Marketing activities are carried-out with CAE test sites through a micro-credit component designed to finance the Revolving Fund for Consumption Cooperatives and Women’s Associations. The credit lines amount to 32 million FCFA with the savings clubs Kondo Jigima in Bamako and Niako and PASECA in the region of Kayes.

1. Dissemination of the results of tests conducted during previous years

Operational Objectives

Introduction and discussion with consulting firms, partners and investment project idea bearers about technical and economic references developed and market opportunities identified.

Results achieved

Demonstration tests: processing technology and marketing

The results of the test to remove maize germ were validated with the sub-contractors (Food Technology Laboratory and Afrique Verte). For technological aspects, proposals for adapted production diagrams were approved. Details are provided about the characteristics of equipment that help improve productivity levels and obtain products that meet market expectations.

Precise guidance may be provided by CAE technicians and by the sub-contractors who actively participated in the implementation of various components of the tests. For example, IER/LTA for technical and technological aspects and Afrique Verte for the marketing component, notably for the establishment of commercial relationships.

Result of technology selection

The main improvement of the milling diagram for flour mills concerned the introduction of a maize germ-removing machine. Technological information collected during the tests were discussed through workshops with the concerned actors and through meetings organized in Niono and Koutiala. This information is regularly made available to the promoters and other projects such as PACCEM, CARE-Mali and ADF, which may be interested in undertaking similar activities.

For the establishment of small-scale processing units, we would approve, for the proposed references, an annual capacity of 200 tons of final products (broken grains and flour) with investments of about 10 to 15 million FCFA.

IER/LTA and the manufacturer of the germ-removing machine took into account the ill-functioning observed. An improved version of the machine is currently under observation with a processing entrepreneur in Bamako.

In the case of maize, the principle of germ-removing as means for improvement and adaptation of the flour to local culinary requirements, was confirmed by the test. In collaboration with LTA/IER and the manufacturer, solutions will be sought to facilitate the provision of other small-scale flour mills with similar equipment.

Results of the establishment of commercial relationships

Local market

In the market of processed products, broken grains and flour produced by flour mills in Koutiala are well-appreciated as quality improvement. The two flour mills directly involved in the germ-removal continued their production. They have been recording increasing demand since the apparition of the germ-less products in the market. The demand includes 1,500 tons of maize (with a proportion of 15% flour and 85% breaks, but essentially in yellow maize as top preferences).

This demand will not be entirely covered due the lack of revolving funds. However, the two concerned flour mills (Karangana and Namposséla) sold all together 300 tons (maize grain equivalent) in flour and broken grains in the regions of Bamako, Mopti, and Kayes and in Koutiala.

Afrique Verte, considering the results achieved with various phases of market tests, directly pursued its support to the flour mills in Koutiala for establishment of commercial relationships and market development. Its micro-credit component arouses interest in the district of Bamako and the commune of Kayes. In the future, we will discuss with Afrique Verte to undertake a mid-term evaluation and consolidation measures to be envisaged for reinforcement of the mechanism for financing of processed maize marketing.

Before introduction of the germ-removing principle, the flour mill in Karangana, the only one in operating conditions, hardly sold its products while the mill in Namposséla had stopped operating. The production of flour, which was their main bottleneck for marketing, is now sold at 100%. Its adaptation to culinary utilization and improvements to make it more appropriate for preservation confirmed.

In the case of maize, an increase in the sale price was possible as a result of the improvement of product quality (prices increased in average from 235 FCFA/kg to 265 FCFA as sale price by wholesalers to client flour mills).

The results of the tests were very encouraging in terms of perspective of sales promotion, due to partial adaptation of the proposed processing tools. The products derived are better standardized and respond better to the requirements of the demand.

For the year “+” of the project, more training sessions will be held to foster interaction among decision-makers in the agro-food sector, encourage initiatives for investment projects and increase the volumes of maize processed into broken grains or flour in order to respond to local demand.

To stay in the logic of the process for improved processing and product quality that has been supported through testing, it is worth recalling the key-elements which will be

pursued in order to promote and encourage the adoption of technologies as well as the achievement of new relevant investments:

- promotion of an integrated program (technical and financial), to facilitate the establishment of and equipment supply to promoters;
- enforcement of production best practice and improved diagrams introduced in order to maintain the same product quality achieved during the test (including continuation of packaging improvement: sachets and bags);
- meeting the requirements (regular supply in quantity and quality) of clients, particularly merchants who expressed interest to sell the product in other regions;
- developing contract establishment with producers to ensure adequate supply in high quality raw materials;
- taking into account the promotion component for the products (multi-form support for rapid implementation of elements proposed by the test in terms of advertisement and information for partner support projects).
- reinforcement of commercial relationships with the network identified during the test and its extension to include other areas;
- follow-up of the credit system established by Afrique Verte to support the development of regional distribution of products made by the Koutiala flour mills, as part of the efforts for reinforcement of the marketing of germ-less products.

Valorization of the maize sector requires the promotion of maize processing: handcraft and semi-industrial processing technologies, that are better adapted to SME/SMIs and GIEs and to the socio-economic context, should be privileged in the short-term, as they require less investment and technical skills than the industrial technologies.

This germ-removing test in the Karangana and Namposséla flour mills had a critical importance in the local production process and for the perfection of a handcraft maize germ-removing machine. It helped the direct actors (designer, manufacturer and users of the equipment) to identify major defaults and find appropriate curative and preventive measures. Therefore, certain necessary adaptations need to be observed:

In practice during the test, ways for continued improvement were explored to make processing more performing for rural small-scale flour mills. By default, these cases should be taken into account in order to bring appropriate solutions in the context of maize valorization through small-scale processing and in the context of sustained market development for broken grains and maize flour.

Various options were explored to help with technology selection based on adaptability to the conditions of the industrial environment and on the financial capacity of interested promoters. The Centre is now able to provide various information to future promoters about technical proposals that integrate various parameters for the selection of a technology. The information device developed under Work Plan IV was based on the utilization and dissemination of all testing results through:

- Development of investment project summary data sheets for semi-industrial processing of maize, which will be considered as a tool to encourage potential investors;
- Dissemination of technical and economic information that indicate the potentials of this sector and the essential steps of customized support to be offered to investors for preparation of their project documents;
- Direct support to project bearers to design their business plans and raise financing that is adapted to their needs.

2.3.2. Search for new opportunities for Millet/Sorghum

Millet/Sorghum Cleaning/Stone-removing: For millet and sorghum, collaboration with the MIS (Millet-Sorghum Initiative) project has made almost no progress. Before implementing the technology testing, planned stone-removing, we are awaiting the completion of modifications on the machines already delivered. The manufacturer of the prototype has stopped his activity. A counseling engineer engaged by ROCAFREMI, following preliminary testing and performance evaluation, and assigned to LTA in Bamako by the network, proposed improvements before installing the machines on the sites.

Despite the delay resulting from the search for improvement over the operations of the machines, collaboration with the MIS project should be pursued in order to address in the short-term the issue stone-removal/cleaning which would considerably improve hygienic and sanitary quality of these cereals.

SECTION III

SUPPORT TO AGRIBUSINESS ENTERPRISES, GROUPS AND ASSOCIATIONS

3.1. Support for increased availability of commercial and technological information and business management capacity building (training)

Since its establishment in 1998, CAE has endeavored to establish a sustainable information system, in collaboration with information provider partners. To this effect, collaboration protocols have been negotiated with national (OAM, DNSI, etc.), sub-regional (MIS's in the sub-region) and international (ITC) partners. With support from these partners, newsletters have been prepared and disseminated among the Centre's clients and partners.

In order to directly support agro-food sector development efforts, micro-programs and magazines have been developed and broadcast with assistance from the national television station and/or outreach radio stations. These audio-visual materials discuss specific and varied themes about modern production techniques and technologies. Support from CAE during Year III helped the Observatory of Agricultural Markets (OAM) start the collection and radio-broadcasting of national and sub-regional price information for potato and shallots.

In order to ensure sustainability of this support, CAE collaborated closely, during its fourth year of operations, with DNAMR regional offices to disseminate technical and technological information derived from the demonstration tests conducted by CAE.

To build on all experiences acquired during the previous years, we have gathered, during year four, information and communication activities into one single bloc and training activities into another bloc. This grouping led to the following:

1. Information and communication activities

- *Preparation and broadcasting of magazines and micro-programs discussing themes related to the products of the three sectors supported by CAE, including livestock, cereals and fruit and vegetable;*
- *Preparation and dissemination of technical documents for promotion of products from these three sectors;*
- *Reception and orientation to client agro-entrepreneurs by making available to them commercial and technological information; and*
- *Partnership with the network of partner information providers such as OAM and IER.*

2. Training activities

- *Training to promoters in private irrigation and management techniques for an agricultural enterprise;*
- *Training to potato producers in storage techniques;*

- *Training to fresh shallot producers in storage techniques;*
- *Business management training to producers and processing entrepreneurs for fruit and vegetable and market-gardening products in the Office du Niger area in Ségou;*
- *Business management training to producers and processing entrepreneurs for fruit and vegetable and market-gardening products in the Office du Niger area in Niono*
- *Training to rice producers in the Office du Niger area in management and production cost control techniques;*
- *Training to on-farm mango buyers in harvesting and fruit disease control techniques.*

3.1.1. Increased availability of commercial and technological information and the dissemination of our results are achieved through:

Preparation and dissemination of price bulletins

Systematic publication of the weekly price bulletin, which helps fruit and vegetable (mangoes, guava, ginger, hot pepper, green beans, yam, etc.) exporters to follow price trends in European and Middle-Eastern markets, was suspended in December 2001. However, fruit and vegetable exporters continued to receive these price information simply upon request to the documentation section of the Centre.

Preparing and publishing technical newsletters

One of the very important aspects of CAE intervention approach is the implementation of demonstration tests. Once these tests are completed, the results are validated in collaboration with partner institutions before they are recorded in data sheets or technical newsletters or video and audiovisual electronic tools (micro-program and magazine). These tools are then largely disseminated among our technical partners who also serve as relays for dissemination/awareness-raising to ensure sustainability by service providers such as outreach radio stations and ORTM. Sometimes, if the beneficiaries are equipped with audio or audio-visual tools, they are provided with copies of the materials for periodic broadcasting in their milieus.

The rice sector bulletin

The second technical bulletin about the sectors, which concerns the rice sector, is being completed by a printer. It will shortly be disseminated among all of our partners. As already stated, its content is about the following:

- *Rice and its varieties;*
- *Rice production areas and systems;*
- *Rice in the world. The Malian rice sector;*
- *The revolution of rice cultivation in Mali;*
- *The major stakes of the intensification of rice cultivation; and*
- *Office du Niger, the masterpiece of rice cultivation in Mali.*

The *rice bulletin*, which will be a basic document about rice, discusses rice production, processing and commercial data. This document will constitute the source of pedagogical data sheets and training modules designed for some of the actors in the sector.

Information dissemination about animal feed

Following the test performed on animal fattening feed, in partnership with the enterprise COPRAAV in Ségou, information about the preparation, composition and utilization methods of this feed were published as insertions in the national daily newspaper *L'ESSOR* in order to ensure broader dissemination.

The potato sector bulletin

This bulletin was initially prepared based on an agreement between CAE and IER, with the latter being responsible for validation of the content in its capacity as competent technical institution in this field. Presently, the preparation is underway with CAE specialists. Its completion and dissemination will occur in the second quarter of Year Five. Its contents deals essentially with production techniques and storage technologies for potato (grading of tubercles, treatment with the anti-germ, utilization of storage boxes, presentation of various types of storage warehouses, including the CAE prototype).

Production/completion and dissemination of magazines and micro-programs

About Malian mango

The dissemination program initiated during Year III was pursued during this year, as the mango marketing campaign was up-coming. The themes concerned mango harvesting techniques and fruit fly control. This activity helps raise awareness among mango producers and on-farm buyers in order to achieve adequate conditioning and obtain high quality export products. The dissemination at the eve of each campaign will, in the long-term, help beneficiaries integrate this approach in their behavior. In order to reach the target population, these materials to be disseminated are designed in French and Bambara languages.

About animal feed

In order to facilitate access for all animal fatteners and cattle producers to the results of the test on the fattening feed produced by COPRAAV in partnership with CAE, a magazine and a micro-program were developed in French and Bambara on video and audiovisual tapes discussing the composition, preparation and methods of utilization of this feed. These media tools were disseminated all over the country. Promotional documents were produced through published advertisement about COPRAAV in order to allow for better understanding of the product and improved sales for the enterprise.

About potato

After the test for potato storage in the two warehouse prototypes in Sikasso, a magazine and a micro-program were developed about potato storage. The micro-program essentially discusses the treatment of potato with the anti-germ, the utilization of storage boxes and the CAE warehouse prototype. As for the magazine, in addition to these aspects, it deals with production itineraries and marketing. These two materials were widely broadcast by ORTM and outreach radio stations in Sikasso, in the OHVN area in Kati and in the Office du Niger area. In addition, copies of the French and Bambara versions were provided to the DRAMR in Sikasso, the Direction General of OHVN, the Chamber of Agriculture in Kati, the Direction General of Office du Niger, in the areas of Niono and Macina for outreach broadcasting. Villages equipped with broadcasting tools such as Bogotière, received copies as well. The involvement of partners and outreach radio stations will facilitate the dissemination of and sustainability of the awareness-raising support to potato producers for the adoption of production and storage best practices.

Other strategies will be developed during Year Five which will consist in conducting field visits with dissemination of the materials to reach the target population and conduct broadcasting sessions in their milieu along with demonstrations and followed by discussions-debates sessions.

Reception and orientation of client agribusiness entrepreneurs by making available to them commercial and technological information

Among the services we deliver to our partner agribusiness entrepreneurs, direct contact, contact by telephone or written correspondence help respond to their requests about issues related to the sectors CAE is working in. Among others, we try to respond to all requests for commercial technical and technological information made by agro-entrepreneurs, either directly when we have the answers readily available or by orienting the requestors towards information sources.

Information dissemination through the AgroMali Web site

The CAE web site is considered as a window on agribusiness because of the information it contains on our activities, the products on which we work, the documents we produce, such as the three-volume manual about animal and poultry feeding best practices and the study on promising agro-industrial sectors in Mali, etc.

The agromali Web site helps Internet users access most of the Centre's information. Table 3 and Chart 2 describe the trends of site visitors from October 2001 through September 2002.

During the first quarter, the site recorded about 5,700 visitors with a monthly average of 1,900 visitors. During the second quarter, the number of visitors was 12,411. During the third quarter, the number increased to 12,875 visitors.

Table 1: Statistical data on visitors to the agromali Web site

	Oct. 01	Nov. 01	Dec. 01	Jan. 02	Feb. 02	Mar. 02	April 02	May 02	June 02	July 02	Aug. 02	Sept. 02
# Visitors	1900	1900	1900	4117	4117	4117	4291	4291	4291	4291	3198	2933

Source : CAE

Partnership with the network of information providers such as OAM and IER

As stated in the introduction, our partnership with OAM and IER initially consisted in providing them with support for capacity building. Today, the partnership with OAM helps inform producers all over the country about the market for products we work on, such as potato, shallot and rice. This information is disseminated on a weekly basis and mainly concern prices. With IER, the partnership is essentially focused on the validation of the content of our technical data sheets and bulletins.

3.1.2. Communication and editing activities

These activities largely contribute in the promotion of top products on which CAE's intervention is centered. This year these essentially concerned the following:

- Development of a promotion strategy for a new animal fattening feed;
- In the context of the promotion of business opportunities in the office du Niger area, a workshop was organized and held, using brochures that presented the conclusions of a study on Office du Niger. The target group was composed of donors, supervisory authorities and partners.
- Likewise for the media dissemination/awareness-raising of our program for quality control, a working program is being developed with DGRC, PDAM and DNAMR for the production and marketing of high quality animal and poultry feed. Audiovisual tools, video and written materials, have been developed in French and regional local languages;
- For potato storage and marketing, a magazine and a micro-program have been developed in French and Bambara languages. These two media tools were broadcast by ORTM, outreach radio stations and by some partner technical institutions such as DNAMR, OHVN and ON;
- Animation of the potato sector Steering Committee through thematic workshops which discussed the constraints in the sector and developed an action plan for the promotion of potato;

- As part of the efforts for promotion of business opportunities in the Office du Niger area, a workshop was organized and held, using a brochure that presented the conclusions of a study on Office du Niger. The target group was composed of donors, supervisory authorities and partners. This promotional activity should be pursued with Office du Niger both within and outside of the country to achieve broad dissemination of information about investment opportunities in the rice cultivation area of Office du Niger;
- A program for broadcasting of micro-programs in French and Bambara about mango harvesting techniques and fruit fly control was developed as part of the efforts for awareness-raising and adoption of new practices and new behaviors in order to improve the quality of mangoes.

3.1.3. Training of agro-entrepreneurs in business management, quality management and sector-specific modules

Training is not an isolate activity, but rather a transversal one that is adapted to sector and enterprise development. It is therefore composed of basic modules aimed at updating agro-entrepreneurs knowledge, but also modules addressing the development of specific sectors (production, processing/storage and marketing).

During Year Four, training activities were essentially focused on capacity building among promoters in the Office du Niger and Office Riz in Ségou. It should be noted that there are collaboration conventions linking CAE with these two institutions and on which Malian authorities have high hopes for the achievement of food self-sufficiency.

Training of promoters in private irrigation and management techniques for an agricultural enterprise

Business management training

The training program for Year Four started with post-training follow-up and evaluation sessions in Bamako from December 13 to 15, 2001 and in Sikasso from November 26 to 29, 2001. They were followed by on-site counseling-support for beneficiary enterprises. The sessions discussed the following:

- The evaluation of training activities carried-out in Year III;
- Presentation of training and information activities programmed for Year IV in the livestock sector;
- Conditions for implementation of these activities;
- Miscellaneous issues.

In the same framework, working and training evaluation sessions were held with members of the training network during the period of November 21. These sessions concerned the following:

- The evaluation of training activities carried-out in Year III;
- Presentation of activities programmed for Year IV;
- Conditions for implementation of these activities;
- Miscellaneous issues.

During the mission in Sikasso, working sessions were held with the DRAMR on November 26, with CMDT on November 27 and with ACOD and AMATEVI the same day.

At the level of beneficiaries, we visited the cereal marketing group in the market of Médine on November 28 and the Association of local product buyers and sellers the same day.

A working session was held with COBAS on November 28 and with APROFA the following day.

November 29 was devoted to application visits to Nieana and Farakala.

In the framework of the preparation of warehouse management training in Foabougou, a working session was held on October 30 at URDOC office in Foabougou with women who are using the warehouse and at the direction of the Office du Niger in Niono. On October 31 in Ségou, a working session was held with G-Force and then with the Office du Niger direction of training and support to the rural world.

It should be noted that CAE participated in the first edition of the Day for reflection on Quality in Mali, held on October 18 at the Palais des Congrès. The objective of this Day was to reinforce awareness-raising about the practice of quality through development of the concept and communication about experiences in Burkina Faso and Mali.

On November 8, a working session was held at CAE office in Bamako among CAE staff and consultants in charge of supporting SEG for the development of its strategic plan for 2003-2013. The objective was to improve the impact of SEG achievements on the upcoming ten year period, starting in 2003.

Training in business management and in specific sectors

With Office Riz in Mopti, a mission to determine collaboration lines was carried-out, which helped develop a training program designed for producer groups in the rice cultivation plots who work in animal fattening, as well as rice production and processing.

CAE's training sessions in the Dogon Plateau targeting shallot production and processing groups were pursued during this period and a working session with the trainers helped assess and approve the first training reports submitted by the trainers Amadou Djiguiba and Mamadou Guindo.

As part of the partnership with the Chamber of Agriculture in Ségou, the training sessions which had started last year were pursued during this period in Tominian, discussing modules on planning, sales and negotiation techniques, presentation of a project document for financing and basic financial notions. These modules completed the training cycle.

A mission was conducted at Office du Niger in Ségou and Niono with the following objectives:

- Constitution of training groups based on beneficiary skills levels and training needs;
- Definition of participation conditions and the training schedule;
- Identification of beneficiaries;
- Information to major partners about activities under Work Plan IV.

This mission helped develop training modules on private irrigation for promoters.

A training session targeting support institutions in Mopti and focused on project financial analysis was held in Mopti.

After various contacts with ON and ORS officials, we developed a training program along with an implementation schedule which we submitted to our two partners for validation (see attachment).

This validation was followed by the preparation of the terms of reference for the trainers and the validation of training modules so that training could effectively start in Office du Niger and Office Riz Ségou areas.

Training to rice producers in the Office du Niger area in Ségou

Training at the ORS designed for 30 participating rice producers was focused on production cost management. It took place from May 6 to 10, 2002. The importance of the theme for rice producers was such that a greater number of trainees, than initially planned for, showed-up. The leaders of the producers groups made the wise decision to accept only those who were initially registered while suggesting that a second session be organized for those who did not have a chance to attend the first one.

Training of producers and processing entrepreneurs for fruit and vegetable and market-gardening products in the area of Office Riz Ségou

The training for the women's group active in fruit and vegetable processing who receive assistance from Office Riz Ségou, started on May 6 in Dioro, numbering 12 women. The training started with the modules on marketing and supply in Bambara language and, as of today, 6 modules have been covered (see schedule and participant list attached).

Training of producers and processing entrepreneurs for fruit and vegetable and market-gardening products in the area of Office du Niger in Niono

The same training started on May 13 and was provided to a group of 10 women producers and processing entrepreneurs working with ON in Niono. Here again, 6 modules were covered (see schedule and participant list attached).

Training of rice producers at Office Riz Ségou in production cost management techniques

Upon request from the ON, we undertook training for 10 private irrigation promoters who received plots of land from the ON and who should serve as models and encouragement for potential investors. The training focused on the establishment of agricultural enterprises in the Office du Niger area. Actual training started on May 6 with the module entitled “Knowing your enterprise better”: the functions in an agricultural enterprise. The 15 modules have already been taught.

Training of on-farm buyers of mango in harvesting techniques and fruit disease control

As part of the efforts to complete the training of on-farm buyers of mango, a series of training sessions helped build capacity among 71 trainees including 40 women in mango harvesting and transportation best practices. The first round of this training started in late February – early March 2001.

Still regarding the mango sector, a module is being developed with content focused on: training of conditioning station workers and station management.

Training of processing women entrepreneurs for dried shallot slices (“EST”)

For the shallot sector, a mission in the Dogon Plateau allowed us to assess the training provided to shallot production and processing groups in production and hygiene best practices. Among the first results recorded, one may mention the improved whiteness of the EST, the producers no longer use poor packaging, mainly old bags and the processing area and materials used are more carefully maintained. Another important element to be noted is the use of potable and clean water to wash the shallots.

The trainer network

The trainer network approach is the approach adopted by the Centre. It integrates both private and public institutions and is evolving towards decentralization.

This approach helped working directly with IER, LTA and CPS/MDR staff.

It is worth noting that the role of the training component was, first, to facilitate the establishment of a network of trainers which will later take-over from CAE. This component ensures the training of network trainers in the training methodology, the development of training materials, the follow-up of training and post-training aspects and

facilitating contacts among trained entrepreneurs. Establishment of the network is a response to the needs for sustainability of the achievements and skills transfer.

Training for members of the consultant and consulting firm network which is involved in the SSE program for establishment of an accounting system or project document preparation, was pursued in Mopti on the cash flow, treasury and business plan modules. In addition to these formal training sessions, the network members received practical training from the Centre through our criticism about the reports and business plans they produced under their contracts.

Table 2: List of Trainers of the CAE Network

N°	Name & Surname	Contact
01	Ibrahima Barry	277 56 76
02	Crotoumou Magassa	223 33 00
03	Abdou Berthé	223 32 24
04	Mamary Traoré	224 02 92
05	Seydou Bouaré	673 10 96
06	Cheick Hamala Coulibaly	674 04 79
07	Samboucourou Kanté	229 34 75
08	Oumou Traoré	222 32 89
09	Moriba koné	222 32 89
10	Daouda Moussa Koné	222 15 89
11	Modibo Sidibé	277 21 33
12	Doua Demba Diallo	673 97 78
13	Sekou Sangaré	224 14 87
14	Sékou Dramé	224 17 34
15	Calixte Traoré	229 97 67
16	Ousmane Keita	229 06 63
17	Bolizé Dao	220 03 32

Source : CAE

Post-training follow-up and application visits in the field reveal that the business management training was one of the most preferred among the 12 modules taught out of a total of 15. The main objective of the business management training is to help participants implement concrete activities: decision-making, behavioral change, improved management system.

The trainees interviewed were able to provide examples of improvement in their enterprises: more than 60% indicated that they had improved their marketing network, their productivity, their turnovers and overall cost-effectiveness of their enterprises.

Constraints to this favorable trend are mainly related to the overall business climate, including weaknesses in the juridical environment, unreliable contracts causing the

banks to become reluctant as they try to avoid risks related to business they deem too hazardous. This may explain the lack of adequate financing to apply the newly learned skills or extend existing enterprises.

Participants interviewed in Sikasso were also very satisfied with the modules they were taught (Business Plan and Controlling your Costs) by the Centre. Their preference went to the modules about the costs (Costs: 55% and Business Plan: 45%) which provided them with an analytical framework that helps classify the costs in order to measure the revenue costs and their impact on various margins, including the profit margin. The “Business Plan” module provided them with guidance for internal management of their enterprises. More than 60% of respondents modified or diversified their working methods; 60% increased their turnovers by about 30% as a result of the combined effects of better control over the costs and improved marketing networks.

However, the most measurable impact was the decision-making to establish accounting systems in order to better monitor the efficiency of their activities. They were not able to indicate the modules that will be more useful to them later, but they indicated that the lack of revolving funds remains the most important constraint to performance improvement.

The constraints they mentioned included the following:

- Poor quality products which limit access to desired markets; and
- Inadequate credit funds to cover the entire cycle of year round activity.

In general, the AVs (village associations) indicated little improvement in their approach as a result of training. They expressed their desire to receive training in market analysis and marketing strategy, stock management and accounting, cash flow and financial management. These modules will help facilitate access to more reliable funding sources.

3.2. Support to agro-food entrepreneurs (enterprise development, fund-raising, direct counseling-support)

3.2.1. Support to promote small-scale processing units

During the past year, CAE pursued its strategy of support to small-scale processing units focused on capacity building among the groups, support to marketing through improved packaging and labels as well as commercial promotion of the products.

CAE has initiated juridical counseling-support for the negotiation of contracts for a processing unit to sign a contract for exclusive distribution of *fonio* in Europe.

Support to improved presentation of processed products (labels and packaging)

Continuation of the facilitation of access to PP packaging

About twelve associations and processing units in the regions of Bamako, Koulikoro, Ségou and Sikasso regularly secure supplies in PP sachets for the packaging of processed fruit and vegetable (dried) and processed cereals (*fonio*, rice, millet). The 500g sachets were easier to sell (66%) than the 1 kg sachets.

Support to commercial promotion

CAE endeavored to facilitate commercial promotion through participation in national, sub-regional or international commercial events, including the following:

- The SECO (“Semaine Commerciale”) 2002 held in Kayes from 01/26/02 through 02/04/02, a real commercial window which recorded participation of several agro-food product processing units;
- The FIARA in Dakar;
- The SIAGRO in Dakar from April 9 to 12, organized by the ATRAPAL (“Association des Transformatrices de Produits Agricoles Locaux” – association of local agricultural product processing entrepreneurs) and UCODAL, a *fonio* processing enterprise.

This event, which included an exhibit on agro-food sectors (fruit and vegetable, cereals, oleaginous, poultry farming, milk, fishing) and technologies for processing, storage, conditioning, and marketing, provided an opportunity to promote valorized Malian agricultural products and to establish interesting contacts with potential clients in the sub-region and even with Europeans interested in the *fonio*.

Promoters also participated in conferences, seminar-workshops, professional meetings among exhibitors and promoters working in the above mentioned sectors. They also visited farms, processing units, providing them with an opportunity to share enriching experiences.

Interesting contacts were also established with packaging suppliers for packaging of fruit juice. For plastic and complex packaging, these included the following: SIMPA in Senegal, AUTOBAR FLEXIBLE in France, and TECHNIPACT-SARL in Senegal. For metal packaging: CARNUD METALBOX in Senegal.

Research was also undertaken about the following processing equipment: sesame pressing machine, ginger grinder, fruit juice, syrup, and jam production line.

The main suppliers identified in France included H. BIAUGEAUD, PREPAC, JEAN DESNOUES.

3.2.2. Support to enterprise development and access to financing

During various launch workshops for CAE, the main constraints identified for business development included the following:

1. inadequate management capacity among agro-entrepreneurs;
2. difficult access to credit;
3. very small size of enterprises.

Therefore, CAE decided to provide these enterprises with a varied scale of support, mainly for management training, access to commercial information, market development and fund raising.

Several assistance sessions for the support network have been organized so that the latter may improve the quality of business plans, thus facilitating access to financing. Business plan development is being pursued thanks to support provided by our SSE network. Dialogue with national and sub-regional financial institutions was reinforced. Three agro-food enterprises received financing as a result of CAE support and several project documents supported by CAE received financing agreement in principle from certain local or sub-regional banks.

All of these activities aimed at developing reliable and viable markets among promoters, consulting services and banks.

This report describes various activities carried-out by CAE in order to facilitate access to financing. Various approaches were developed, including the following:

Capacity building for the support network

Capacity building for the support network was conducted through:

1. *Consolidation of the SSE program in Bamako, Ségou and Sikasso*

Increased collaboration between SSE offices

With the purpose of building capacity among the consulting firms and to improve the quality of their services, CAE stimulated increased collaboration among them so as to facilitate experience sharing between various specialties. Several firms collaborated together to produce business plans, thus improving the quality of studies.

Direct Technical Support

CAE continued providing direct technical support to the consulting firms through working sessions aimed at improving the quality of business plans. Several SSE offices worked with CAE specialists to receive support for finalization of their business plans and reports on accounting system establishment.

2. Support network capacity building workshop in Mopti

After Bamako, Ségou and Sikasso, CAE extended its activities for business plan development to include Mopti under the SSE program. The objective of this seminar was to improve the quality and harmonize credit request documents developed by the consulting firms on behalf of agro-entrepreneurs in the region.

The seminar discussed the following themes:

1. preparation of financial record of an enterprise;
2. project financial analysis;
3. SME analysis methods as seen by a bank worker;
4. Credit scoring;
5. Outline of CAE business plan; and
6. Outline of a technical and financial offer under the SSE program and methodology for presentation of documents to be submitted to OIKOCREDIT.

Two representatives of financial institutions and six consultants or accountants from Mopti, Bankass, two representatives of support institutions participated in this seminar. During the seminar, participating bank workers made presentations on bank conditions and the main elements to be mentioned in project documents to be submitted to the banks.

Promoting investments in Agribusiness

In order to promote investments in agribusiness through large projects that would have a more significant impact in the agribusiness sector, CAE established contacts with certain entrepreneurs who have proven experience in their sectors of activity. The following activities were carried-out:

- Distribution of summary data sheets among leading operators in the regions of Ségou, Bamako, Sikasso and Mopti, for projects identified during the study on agro-industrial sectors. The objective was to encourage these operators to invest in agribusiness by presenting them with investment opportunities.
- Involvement of bank credit directors or financial analysts, mainly from BICIM-S.A., BNDA and BOA in the dissemination of this study in order to make it available to economic operators who have good financial records with these banks.
- Involvement of the support network in the dissemination of the project data sheets among credible and serious economic operators.

Counseling-support

Activities concerned the following:

1. *Reception and orientation of project idea bearers or promoters*

CAE held several working sessions with agro-entrepreneurs during Year IV. The objective of these working sessions was either to reinforce, rehabilitate or re-direct project ideas of the promoters.

2. *Establishment of accounting systems*

Through CAE support, in partnership with the SSE consulting firms, establishment of reliable accounting systems was pursued within the following enterprises: Rice processing/GDCM, Small-scale dairy unit/Harry Delices, Karité butter processing/GIE Chikolo, Small-scale dairy unit/Provel. Among the four enterprises which received support, three are managed by women.

3. *Business plan development*

Twenty-seven (27) business plans were developed with technical and financial support from CAE through SSE program or APDF/Abidjan consultants. The business plans were produced by:

- **SSE: 26**
- **APDF: 1**

The comparative table in **Annex 2** summarizes the progress status of credit documents supported by CAE.

4. *CAE's financial intermediation role*

A. Training about financing sources

To facilitate access to financing for the enterprises, CAE organized three information seminars about financing sources. These included the following:

- **Seminar on financing opportunities for rice processing and marketing in the Office du Niger area**

The following themes were discussed: CAE support and the stake of paddy rice processing, rice processing and various technological levels, the SSE program, financing conditions for OIKOCREDIT, PUFs, FCRMD, CIDR.

37 farmer organizations, 2 financial institution representatives, and 4 consulting firms participated in this seminar. Customized meetings were organized to discuss with various project promoters.

The seminar about the DCA program was postponed for next year, as the DCA officer was scheduled to arrive in October.

- **Information seminar about sub-regional financing sources in Mopti**

CAE conducted an information seminar about financing sources identified within the sub-region during its missions in Abidjan, Lomé, and Cotonou, targeting consulting firms, banks and support institutions in the region of Mopti. Ten persons participated in this seminar organized besides the support network capacity building workshop.

- **Seminar on capital lease in partnership with EquipBail in Bamako**

CAE, in collaboration with EquipBail, a branch of the BOA group which specializes in capital leasing, organized an information seminar about the intervention conditions of the company. Five consultants and nine economic operators participated in this seminar.

B. Dissemination of a road map

A road map was developed, describing the investor's itinerary from the project idea up to implementation. The map will be disseminated after the printer completes printing.

C. Identifying new financing sources

Three new financing sources were identified: a new bank, the Malian Solidarity Bank (BMS) and two guarantee institutions, the mortgage guarantee fund, the "Fonds Auto-Renouvelable pour l'Emploi – FARE (self-renewable fund for employment), which would guaranteed projects for the youth up to 35 million FCFA.

D. Reinforcement of dialogue with local banks

a) Informing the banks about the potentials of the agro-food sector

Efforts were pursued to sensitize the banks, through frequent working sessions, to encourage them to further finance the agro-industry.

The report of the study on agro-industrial sectors was submitted to CAE's major partner banks including BICIM, BNDA, BOA, BDM-S.A. The objective was to provide additional information to various bank financial analysts for the assessment of agro-industrial project documents submitted by CAE.

During this year, discussions essentially focused on the follow-up of documents submitted to the banks for financing and on the role CAE may play before and after financing, through its SSE program.

The CAE fund raising specialist met with the following banking institutions:

- **Crédit Initiative:** Discussions with the director of the Bamako agency about the GASA rice processing document and other documents including: oil-mill, *karité* butter processing.

- **BIM:** Discussions with the head of the large enterprise division about the Dioro Rice Processing project document.
- **BDM-S.A.:** Discussions with the Deputy-Director of Operations about the Dioro rice processing document.
- **BNDA:** Discussions with the Director of Credit and Network about the Dioro rice processing project and the dried mango project.
- **BOA:** Niono small-scale rice processing, Commercial extension of cereals;
- **BNDA:** Discussions with the KFW consultant responsible for establishment of a credit line to finance rural SMEs in agriculture and related activities.
- **BICIM:** Discussions with BICIM and BOA for effective start-up of the DCA guarantee program.
- **BNDA, BDM, BIM / Mopti:** Experience sharing in the financing of agro-food sector, capacity building program for the CAE support network, SSE program.
- **BICIM:** Discussions with the Director of Credit about the following documents: One-day-chicks, Tam fruit, SANA animal feed.
- **BNDA:** SANA animal feed, Tam fruit and vegetable, one-day-chicks, food stuff conditioning unit.
- **BDM:** Discussions with the Director of Operations and Network about the documents related to one-day-chicks, mango drying, rice conditioning unit.
- **Credit Initiative:** Discussions with Operations Officer about the rice processing document.
- **BICIM:** Tam fruit
- **BNDA:** Food stuff conditioning unit.
- **BDM:** Discussions with the Operations and Network Director about mango drying and rice conditioning unit documents.

b) Relationships with international financial institutions

- **APDF/Abidjan:** Working session with the investment counselor for Mali about the mango drying unit document and follow-up of the management system established at the GDCM.
- **OIKOCREDIT:** Meetings with OIKOCREDIT Officer about the progress status of projects submitted during his mission in Bamako.
- **BOAD:** Discussions with the BOAD Officer in Bamako about the Dioro rice processing and Tam fruit and vegetable documents.
- **BOAD/Lomé:** Two working sessions with officials of the BOAD in Lomé who came to conduct the technical and financial assessment of the SANA project (animal feed manufacturing unit in Fana) to help the bank make a decision regarding these two projects.
- **Cauris Investissement/Lomé:** Visit by the Business Officer of Cauris Investissement to assess opportunities for collaboration with CAE partner agro-enterprises.
- **PUFS/BOA:** Meeting with PUFS Program Officer to discuss the progress status of project documents submitted during his visit in Bamako.

c) Project financing

CAE technical and financial support facilitated financing for three projects, including:

- *Purchase of shallots for storage by the Foabougou Women's Association for 10 million FCFA*
- *Cattle fattening/Farakala Agro-pastoral Association:* the bank has started disbursing funds for the Association. The amount disbursed is 2 million FCFA.
- *Mango processing unit / TAM-Fruit and Vegetable:* the bank has agreed to finance this project up to 110 million FCFA. The promoter is in the process of lifting the suspending conditions, mainly regarding control over the channel of transportation, processing and product conditioning under an internationally recognized label. Funds will be disbursed soon.

Another project, which was not developed with CAE support, received financing following assistance provided to the bank by CAE during their field mission to assess the project. This concerns:

- *Animal Feed Manufacturing Unit/SANA:* the BOAD/Mali officer recognized that various working sessions with CAE helped them, to a certain extent, in their decision to finance establishment of an animal feed manufacturing unit in Fana. The amount of funds requested from BOAD is 700 million FCFA.

3.3. CAE Activities for the DCFA Guarantee Program

CAE participated in the establishment of the DCA guarantee fund within the concerned banks. Fifteen documents were submitted to the banks under the DCA program.

3.3.1. Informing government support institutions about existence of the DCA program

The fund raising specialist met with government support institutions in charge of investment promotion (CNPI and DNI) to provide them with adequate information. The objective was to make a census of pending projects which were not financed due to the lack of guarantee and to determine how these could be eligible to the DCA program.

The bureau of public enterprises was also approached to identify enterprises designed for privatization and which would require financing for rehabilitation.

3.3.2. Informing other guarantee institutions about existence of the DCA program

The fund raising specialist had a working session with the direction of the mortgage guarantee fund. The goal of this institution is to facilitate access to housing by guaranteeing loans provided by the banks to individuals seeking to acquire housing facilities. The objective of the working session was to discuss opportunities to extend products offered by the fund to CAE clients who wish to build warehouses, as well as opportunities to “co-guarantee” projects with CAE.

3.4. Other activities

The enterprise development specialist had a working session with a financial consultant from the home office. During this mission we met with all partners involved in the agro-food financing (banks, financial institutions, micro-finance institutions and support institutions).

1. Objectives of the mission

- To prepare a proposal for improvement of the financing strategy for the agro-food sector.

2. Observations

Our meetings with various officials led to the following observations:

- Limited access of agro-entrepreneurs to bank credit;
- Reluctance of banks to finance the agro-food sector;
- A rooted culture of non-reimbursement on the part of promoters;
- Scarcity of long and medium-term resources to finance long and medium-term projects;
- Necessity to review the USAID credit line with the FCRMD designed to finance private irrigation as the promoters are not able to pay even for “intercalaires” interests.

3. Recommendations

- To collaborate with a capital leasing company for development of the concept of capital leasing in order to finance equipment acquisition in the agro-food sector; and
- To suspend financing for private irrigation promoters financed with the USAID credit line with FCRMD.

SECTION IV

IMPROVING THE AGRIBUSINESS CLIMATE

Agribusiness climate improvement activities concerned the following:

1. Capacity building among Professional Organizations and Consular Chamber Institutions;
2. Development and promotion of the marketing of agro-food products at the national and sub-regional levels;
3. Partnerships with agro-food support institutions and agribusiness institutional support institutions.

4.1. Capacity building among Professional Organizations and Consular Chamber Institutions

Professional organizations constitute the key-elements and important instruments for the improvement of the business climate. Therefore, they appear as the mainsprings for professionalization and business climate improvement, because of their capacity to ensure promotion of their interests and to influence policies. Effective involvement and active participation of the major actors are essential to achieve significant progress in improving their business environment in order to achieve true development of the agro-food sectors.

Based on this consideration, CAE endeavored to build capacity among professional associations and organizations in the following fields:

- Organization and structuring;
- Training in business management and quality management;
- Fund-raising; and
- Commercial promotion of the products.

4.1.1. Professional Organizations

The following professional groups and associations were targeted during Year IV:

1. Potato Producer Association in, APPS in Sikasso;
2. Djantoyéréla Women's Association in Foabougou;
3. Local Product Processing Association, ATRAPAL in Bamako;
4. Women's Cooperative for Valorization of Fruit and Vegetable, COFEVAFLES in Sikasso;
5. Agro-food Processing Women Entrepreneur Network in Ségou;
6. Federation of Livestock and Meat Inter-professional groups, FEBEVIM in Bamako;
7. Farakala Agro-pastoral Association;

8. Association for Training and Counseling-support for Shallot Drying Groups, FAC/EST in Bandiagara;
9. Malian Association of Fruit and Vegetable Exporters, AMELEF;
10. Association of Fruit and Vegetable Professional Exporters, APEFL;
11. Malian Association of Crude Product Exporters, AMEPROC;
12. Federation of Banana Producer Organizations, FOPB.

The criteria for selection of professional groups and associations related to the targeted promising sectors and their dynamism and capacity to capitalize and ensure sustainability of their achievements.

CAE placed particular emphasis on capacity building among women's groups and associations, a category of actors who are particularly active and dynamic, largely contributing to income generating activities and the fight against poverty in both rural and urban areas.

In accordance with the initiative of USAID Bureau for Africa based in Washington, which led to the establishment of the African Women Agribusiness Network Development (AWAND) in Accra in August 2001, it was recommended to establish national relays.

CAE, in partnership with DEFSAM, organized a reflection and awareness-raising workshop about the development of women entrepreneur groups in the agro-food sector. About twelve processing women entrepreneurs in the regions of Kayes, Bamako, Koulikoro, Ségou, Sikasso, Mopti and Gao participated in this seminar. Reflections concerned the reinforcement of information exchange mechanisms, the reinforcement of relationships between women entrepreneurs, the identification of favorable conditions and mechanisms to build their associative capacity and, finally, mobilization of actors in order to establish dynamic and efficient groups and/or networks.

A flexible committee was established to coordinate the establishment of relays in various regions, with the objective of building capacity among women enterprises and organizations working in the agro-food sector through establishment of dynamic and efficient networks.

Finally, CAE supported and facilitated the revival and animation of the consultation frameworks in the potato, shallot, livestock/meat and rice sectors. These consultation frameworks helped achieve, to a certain extent, improvement of the business climate by facilitating guidance for decisions about the policy for supplying actors with inputs and equipment/materials; the policy for training and product quality improvement, the issue of normalization and quality control; the marketing policy (at the local, sub-regional and international levels); access to bank financing and the private investment policy.

4.1.2. The Permanent Assembly of Malian Chambers of Agriculture – APCAM

The Permanent Assembly of Malian Chambers of Agriculture (APCAM) is the network of Chambers of Agriculture composed of professional organizations in the sector. An efficient instrument for the promotion of agriculture to serve the rural world, APCAM is a reference institution for the rural world. One of the objectives of its action plan is to foster and encourage individual and collective initiatives of rural operators in order to support their creativity and know-how in production, processing and marketing.

During the past year, CAE consolidated its partnership with APCAM. Capacity building activities were focused on both organizational and structural aspects as well as processing aspects. APCAM was closely involved in various activities for development and promotion of promising sectors targeted by CAE – livestock, potato, shallot, mango and cereals.

CAE is also engaged with APCAM in the preparations for the 1st International Saloon of Agriculture (SIAGRI). Initially scheduled to take place in February 2003, this event was postponed to the last quarter of 2003. This major event will provide an opportunity for great mobilization of national and international exhibitors and to ensure promotion of Malian agricultural sector activities and the development of experience sharing activities.

To help APCAM prepare a detailed programming for the Saloon with various activities to be carried-out, a communications tool and promotional tools, so as to mobilize financial resources and sub-regional and international exhibitors, CAE provided assistance for development of the terms of reference for the Saloon and for the selection of an international consulting firm with proven expertise in the organization of international commercial events. The consultant recruited is the SENCOMANE cabinet in Dakar, which organized various international saloons. This firm will be responsible for:

1. Developing a detailed planning and the budget of the Saloon;
2. Development of the technical document for the Saloon, along with the communications plan, the promotional tools and information documents;
3. Mobilization of resources with international organizations specialized in the support to commercial events and the promotion of agricultural and agro-food products;
4. Researching sponsoring agencies at the international level.

Finally, CAE provided support to APCAM to help them participate in the SIAGRO 2002 in Dakar as professional visitor and to establish initial contacts with exhibitors and potential partners for the SIAGRI.

4.1.3. Establishment of the Orientation and Coordination Committee for Promotion of the Agro-industrial Sectors

Following the joint MICT/CAE study on agro-industrial sectors and the recommendations of the subsequent validation workshop held in February 2001, the

Ministry of Industry, Commerce and Transports made Decision No.71/MICT dated December 2001 to create a Committee for Orientation and Coordination for the promotion agro-industrial sectors, which would be responsible for the follow-up of implementation of the action plan of the policy for promotion of the sectors identified in this study. This committee, chaired by the MICT and including CAE as member, is composed of representatives of the following departments:

- The Ministry of Rural Development (current Ministry of Agriculture, Livestock and Fishing);
- The Ministry of Economy and Finance;
- The Permanent Assembly of Malian Chambers of Agriculture – APCAM;
- The Chamber of Commerce and Industry of Mali – CCIM;
- The National Federation of Malian Employers – FNEM;
- The Malian Association of Fruit and Vegetable Exporters, AMELEF;
- The Federation of Malian Livestock and Meat Inter-professional Groups, FEBEVIM;
- The Malian Association of Crude Products;
- The Poultry Farmers’ Group;
- The Malian Fisher Association;
- The National Federation of Malian Professional Transporters’ Group.

Permanent secretariat of the committee is ensured by the National Center for Investment Promotion, CNPI.

4.2. Development and Promotion of Agro-food Product Marketing at the National and Sub-regional Levels

CAE has approved two major lines of intervention for the development and promotion of agro-food products at the national and sub-regional levels:

1. To provide specific support to professional groups involved in sub-regional trade, including the following:
 - the Federation of Malian Livestock and Meat Inter-professional Groups, FEBEVIM;
 - the Association of Potato Producers in Sikasso, APPS;
 - the National Coordination of Economic Operators of the Agro-food Sector in Mali, CONOESAM;
 - the Border Market Management Company in Sikasso, SOGEMAF.
2. To collaborate with institutions responsible for sub-regional trade (WAEMU and CILSS)

4.2.1. Agro-food product marketing

Despite notable progress, there is a lack of sound policy for adequate support indispensable for ensuring better integration, mainly with more sustained efforts for increased and diversified export capacity. It is unanimously admitted that successful diversification of exports depends on the quality of the environment and capacity to attract local and foreign investments. These two factors inter-act on each other.

The promising sectors composed of the livestock/meat and the cereal sectors, as well as certain horticultural products, may help Mali position itself as potential net exporter in these sectors. In order to seize this opportunity for export diversification in the agro-industrial sector, it is essential that the national system of normalization and quality control be reinforced.

It is also essential that investment promotion activities be reinforced.

4.2.2. Collaboration with institutions in charge of sub-regional trade

One of the handicaps to the promotion and development of inter-State trade for agricultural and food products in West Africa is the existence of illicit practices of border crossing which has induced effects on product transaction costs. CAE and CILSS are engaged in supporting the implementation of the pilot phase of the “Observatoire des Pratiques Anormales au Franchissement des Frontrières – OPRAFA” (observatory of illicit practices of border crossing). At the same time, CAE has engaged reflection with the FEBEVIM to research alternative solutions that would help make significant progress on this issue, by supporting it with objective documentation.

Market promotion constitutes another collaboration line with CILSS. The Sikasso border market, which is being established, is designed to be a dynamic sub-regional trade pole. After establishment of the Sikasso Border Market Management Company, SOGEMAF-S.A., a limited company with a capital of 22 million FCFA, including 19.1 million entirely released, CAE in partnership with CLUSA and OMBEVI are collaborating to reinforce this company. The goal is to make SOGEMAF operational, performing and efficient. A business plan was developed to this effect and SOGEMAF was provided with a dashboard and management tools. An accountant was recruited. The directors received training in the concept of limited company, its operation and the roles of the directors. Efforts are being made with existing banks to raise funds for establishment of the revolving fund.

As for WAEMU, CAE participated in the workshop for capacity building for the monitoring of commercial negotiations as part of sub-regional integration. Particularly, the goal was to make proposals to have actors in the rural sector participate actively in the process of WAEMU agricultural policy development.

4.2. Partnership with other agribusiness support programs and institutions and institutional support to the institutions

The objectives are as follows:

1. To create maximum synergy with agribusiness support institutions of development partners such as APROFA, DEFSAM, PROCELOS and OHVN so as to increase efficiency of our interventions and capture all positive externalities. This approach has particularly been proven during preparation of the National Commercial Week (SECO 2002).
2. To contribute in better articulation and coordination among para-statal or state support organizations, such as IER, DNCC, along with the steering committee for commercial events, in order to ensure sustainable conditions to our interventions.
3. Finally, partnership with private commercial organizations such as consulting firms, NGOs and GIEs for implementation of our activities.

CAE sought to:

- Pursue and intensify the search for synergy with other agribusiness support institutions in order to increase efficiency of our interventions.
- Ensure better coordination by involving para-statal or state support institutions and organizations so as to ensure sustainable conditions to our interventions.
- Pursue partnership with private commercial organizations such as consulting firms, NGOs, and GIEs for implementation of our activities through sub-contracting.

4.3.1. Partnership with other support programs and public or para-statal agribusiness institutions

During Year IV, CAE placed emphasis on and pursued collaboration with support organizations working in the agribusiness sector, through periodic meetings and the definition of common intervention lines and methods for implementation of certain activities. The objective of this approach was to achieve better utilization of synergies in order to increase efficiency of our interventions. These include:

- CLUSA;
- DEFSAM, UNIDO support program to women's small and medium agro-food enterprises;
- APROFA, Agency for promotion of agro-food sectors;
- OHVN, Office of the Niger river High Valley;
- PROCELOS, agro-food product processing SME promotion unit of the CILSS.

The preparation and organization of the national Commercial Week, SECO 2002, provided an opportunity for CAE to successfully initiate fruitful partnership with APROFA, DEFSAM, PROCELOS and OHVN. A common approach was thus agreed-upon for the definition of a participation strategy, the profile of exhibitors and the

level of involvement and financial commitment. This helped further ensure rationality and efficiency of our support.

A large Agribusiness Space sizing 160 m² for exhibitions was prepared for about twenty exhibitors with a variety of high quality processed products including cereals (rice, millet/sorghum, maize, *fonio*), fruits (dry, jam, juice, syrup) and vegetables (dry, preserved), various spices, sauces, oils and animal products (dry meat).

The SECO, designed to be a window for valorized local products and initiated by the National Directorate of Commerce and Competition, DNCC, also helped consolidate our partnership with this institution in its mission of commercial promotion.

In the field of collaboration with public or para-statal agribusiness support institutions, the approach consisted in obtaining maximum involvement in the implementation of programmed activities, thus ensuring better coordination and the conditions for real sustainability of our interventions. These institutions included the following:

- the Institute of Rural Economy, IER;
- the Regional Direction for Support to the Rural World, DNAMR;
- OMBEVI.

Therefore, CAE, in partnership with these para-statal institutions, implemented several programmed activities for development and promotion of the main promising sectors, including: shallot in Foabougou, potato in Sikasso and animal production in Bamako, Ségou, Sikasso and Mopti.

4.3.2. Participation in forums and workshops

During the past year, CAE participated in various forums, including the following:

a. Public/Private Sector Partnership

The forum on Public/Private Sector Partnership was designed to be a forum that would give a new impetus and help consolidate activities already undertaken in order to establish a more favorable legislative, regulatory and juridical framework and reduce production costs, develop competitiveness among Malian enterprises and facilitate access of the productive system to bank financing. A business plan was developed to this effect and a draft National Convention for Partnership between the Public and Private Sectors was proposed.

b. The “Programme d’Appui aux Services et Organisations Paysannes (PASAOP)

The other major event was the launch of a major program by the MDR, the *Programme d’Appui aux Services et Organisations Paysannes – PASAOP* (support program to services and farmer organizations). This program falls under the Guidelines and the framework of the poverty reduction strategy paper, which are focused on enhanced

economic growth and rural development, the reduction of poverty in rural areas, improved natural resource management, and the reversal of the trends towards environmental degradation.

The specific objective of this program is to reduce rural poverty through sustainable increase of labor productivity as a result of constant evolution of the techniques made available to the rural world for both agricultural activities and non-agricultural activities.

Specific results expected from the PASAOP program include the following:

- Increased capacity of the national system of dissemination of agricultural expertise;
- Development of producers' and other entrepreneurs' skills in the rural areas to help them identify and articulate their needs and have access to services;
- Increased receptiveness of service providers to the needs of their clients and are more accountable.

With a total funding of 150 billion FCFA, the program is scheduled for a period of 11 years with 3 phases. The first phase, with a budget of 60 billion FCFA, started in May 2002 and should close in June 2005.

The PASAOP has four components:

- Rationalization and modernization of the MDR;
- Support to the national agricultural research system;
- Support to the national agricultural extension system; and
- Support to agricultural chambers and farmer organizations.

Each component is divided into sub-components and sub-projects. Its coordination bodies at the national level include the following:

- The steering and orientation committee; and
- The coordination unit.

Coordination bodies are also planned to be established at the regional, local and communal levels.

4.3.3. Institutional support to para-statal agribusiness organizations

a. the Institute of Rural Economy

For two years now, CAE has undertaken with IER, an approach aimed at creating a new competence that helps the Institute produce and commercialize goods and services in order to generate resources and provide it with maximum financial autonomy. CAE's support, through the Support Services to Enterprises, helped develop a private sector-type of approach through the establishment of Business Units at the laboratories and research

centers, with their own business plans. A Business Unit was therefore created at the Direction of the Institute while business units were established at:

- The Food Technology Laboratory;
- The Animal Nutrition Laboratory;
- The Soil and Water Laboratory;
- The Sotuba Research Center;
- The Niono Research Center;
- The Sikasso Research Center; and
- The Mopti Research Center.

In addition, IER benefited from the continuation of training for the establishment and development of internal capacity for market study and business plan development.

b. The Central Veterinary Laboratory

CAE provided the LCV with support to reinforce its Toxicology Unit in its search for a French organization that is specialized in the analysis of pesticide residues in agro-food products imported from tropical countries in order to obtain an internship training.

c. Office du Niger (ON)

One of the main lines of collaboration between CAE and Office du Niger concerns support to Office du Niger for implementation of its agribusiness program, with periodic review of activities programmed. This working program focused on the following areas of intervention:

- post-harvest operations for rice;
- rice processing;
- the promotion of private irrigation with the objective of capacity building among private investors in irrigation;
- the promotion of alternative crops;
- institutional support to the ON with staff capacity building and support for the organization of investor forums.

During the past year, CAE continued collaboration with ON for implementation of its work program in the rice, shallot and potato sectors. In addition to support for rice processing and marketing, our efforts focused on the promotion of private irrigation. The same is true of alternative crops, including shallots and potato.

Besides continuation of the shallot program, CAE provided support to Office du Niger for the development of terms of reference and the selection of a consulting firm to conduct a study on the production opportunities, storage and marketing strategies for potato in the Office du Niger area.

Particular emphasis was also placed on promotion of the new Office du Niger, with the definition of a promotion strategy, targeting both local and foreign investors. A workshop for feedback to development partners about the study on investment opportunities in the Office du Niger area was organized in Bamako prior to the investors' forum. The capacity building dimension was taken into account through the training of Office du Niger workers.

Finally, CAE proposed Office du Niger a few lines for reflection to revive the consultation frameworks, as the ultimate objective of the consultation is to contribute in further promotion of the development of the main sectors at Office du Niger, improving their competitiveness within a more and more open and competitive environment.

d. Office Riz Ségou

Continuation of the collaboration with Office Riz Ségou under the collaboration convention that links CAE to Office Riz Ségou and which covers various types of support for management training and marketing, information and commercialization.

SECTION V

THE PARTNERSHIP FUND

The Partnership Fund, a stimulating tool aimed at encouraging and consolidating quality service delivery to Malian agro-entrepreneurs, helped CAE contribute in the creation and maintenance of a sustainability approach for its interventions, while building capacity among its partner organizations, consulting firms, NGOs and service providers.

5.1. Commitments by Sub-Contract

Total commitments of the Partnership Fund by sub-contract during Year IV amounted to **US\$95,615 or 69,952,215 FCFA**.

Sector or Sub-sector	Resources Committed	%
Livestock	19,516	20.41
Potato	33,666.75	35.21
Shallot	16,634.75	17.4
Rice	2 517,5	2.63
PUT	9,690	10.13
Other	13,590	14.21
Total	95,615	100

In US\$

These committed resources helped CAE contribute in the promotion and development of livestock, potato, shallot and rice sectors or sub-sectors through:

1. implementation of a demonstration test for production and marketing of a balanced animal feed for the production of high quality animals;
2. support for capacity building among producer organizations, information and awareness-raising about the adoption of best practices, price and quantity information collection and dissemination, and the development of a micro-program and a magazine;
3. support to reinforce the women's group in Foabougou to follow-up and manage the warehouse, management training, information collection and dissemination about prices and quantities;
4. completion of a technical study for the development of 150 hectares for private irrigation in the Office du Niger area;
5. preparation of packaging labels for 12 processing units for 17 products;
6. an assessment of direct results and induced effects of activities carried-out by CAE.

Details about the 10 sub-contracts for Year IV are provided in the following table:

Table 1: Details about Year IV Sub-contracts

Sub-contractors	Activities	Amount in US\$	Amount in FCFA
Graphique Industrie	Printing of PUTS labels	9,690	6,938,040
SISED	Technical study for land preparation RAJAA(150ha)	2,517.50	1,792,500
COPRAAV	Production and marketing of improved animal feed	14,553.00	10,419,954
IER4	High quality animal production	4,963.00	3,657,500
AMATEVI 3	Information and awareness-raising about production and processing best practices	16,977.00	12,614,000
ACOD4	Capacity building among producer groups for production and processing	8,686.00	6,366,850
IER5	Specifications, monitoring and management of 100 T shallot storage warehouse	12,337.00	9,166,250
IER6	Support to CAE team for activity Monitoring-Evaluation	13,590.00	9,975,000
OMA3	Collection and dissemination of information about potato and shallot prices and quantities	8,595.50	6,309,120
CESPA2	Production of magazine and video and audio-tape micro-program /Production and processing best practices	3,706.00	2,713,000
Total		95,615.00	69,952,214

Source : CAE**5.2. Commitment from the SSE Program**

Total commitments under the SSE Program for Year IV amounted to **23,567,840 FCFA** and concerned 30 business plans. These business plans concerned the following projects:

- Private irrigation, land development for rice cultivation (2);
- Rice processing (4);
- Mango processing (3);
- *Fonio* processing and marketing (2);
- Cereal marketing (2);

- Marketing of alternative agricultural products (2);
- Cattle fattening and poultry farming (7);
- Animal feed manufacturing (1);
- Improving milk collection, processing and modernization of dairy unit (2);
- Establishment of the Sikasso border market (1); and
- Capacity building for IER to undertake income generating activities and develop business plans (1).

Details about the business plans are provided in the following table:

Table 2: Details about Business Plans for Year IV

Project	Promoter	Study cost	CAE Contribution	%
Technical study for development of 30 ha of land at Office du Niger	Bréhima Coulibaly	325,000	260,000	80%
Technical study for development of 30 ha of land at Office du Niger	Nouhoum Sangaré	325,000	260,000	80%
Support and juridical counseling to negotiate contract	UCODAL	750,000	600,000	80%
Sikasso border market	SOGEMAF	2,682,000	2,145,600	80%
Establishment of a paddy rice husking unit in Koulikoro	Cheikna BA	1,210,000	726,000	60%
Designing a shallot storage warehouse	G F C D Women Entrepreneur and Merchant Group for Development	1,255,000	753,000	60%
Industrial manufacturing of packaging boxes in Mali	Bougadary Traoré	1,219,250	731,550	60%
Animal feed manufacturing unit in Bamako	Sékou Draméra	1,325,000	795,000	60%
Extension of paddy rice husking and rice marketing in Niono	Association Nyètaa	1,279,910	767,946	60%
Extension of paddy rice husking and rice marketing in Molodo (Niono)	GIE Kankélen	1,279,910	767,946	60%
Extension of paddy rice husking and rice marketing in Niono	Mme Coulibaly Assétou Mah Diarra	1,279,910	767,946	60%

Project	Promoter	Study cost	CAE Contribution	%
Cattle fattening	Koïta et Fils Konna	744,100	595,280	80%
Cattle fattening	Association de Konna	744,100	595,280	80%
Improving the collection, storage and processing of dairy milk within collection centers	Federation of Milk Producers' Association in Djitoumou and surroundings	1,011,500	606,900	60%
Cereal marketing in Sikasso	Cereal marketing group	750,000	600,000	80%
Cattle fattening in Ségou	Cheick Oumar Niangado	750,000	600,000	80%
Mango juice production unit from dry mango extract in Bamako	Bréhima Coulibaly	1,015,000	609,000	60%
Poultry farming in Konobougou	Moriké Dembélé	750,000	600,000	80%
Establishment of industrial unit for Bio fruit and vegetable in Bamako	Société BIO Mali	1,204,250	722,550	60%
Training and monitoring of Business Units for business plan development	IER	3,500,000	1,750,000	50%
Cattle fattening	Abdoulaye Sow	750,000	600,000	80%
Cattle fattening	Farakala Agro-pastoral Association	750,000	600,000	80%
Cereal processing (<i>Fonio</i>)	UCODAL	1,177,000	706,200	60%
Collection, conditioning and marketing of agricultural products (<i>karité</i> , sesame, cashew nut, Arabic gum)	AMEPROC	1,257,000	754,200	60%
Dairy unit modernization	Ségou Lait Amadou Simaga	1,925,900	1,155,540	60%

Project	Promoter	Study cost	CAE Contribution	%
Extension of local agro-food product processing and valorization	G F C D Women Entrepreneur and Merchant Group for Development	1,652,500	991,500	60%
Fresh mango conditioning and dry mango production for exports, Sikasso	Fruitière du Lotio Mamadou Koné Boukary Ba	1,535,000	921,000	60%
Extension of agricultural product marketing	GIE GEMPEPA	1,642,000	985,200	60%
Establishment of a cereal bank	UACT – Union of Tominian district agriculturalists	1,225,000	735,000	60%
Cattle transportation service enterprise and cattle fattening enterprise	Bénéna Commune Cattle Merchants' Association	1,442,000	865,200	60%
Total			23,567,840	

Source : CAE

SECTION VI

MONITORING-EVALUATION OF THE WORK PLAN ACTIVITIES

During Year IV, CAE received technical support from the “Economie des Filières – ECOFIL (sector economical analysis) Program of IER for the monitoring-evaluation component. The overall objective of this consultancy was to facilitate the monitoring and evaluation of the Centre Agro-Enterprise during Year IV.

More specifically, the consultant, in collaboration with the CAE technical team, was responsible for:

- Developing technical data sheets to facilitate data collection for activity monitoring and evaluation;
- Conducting an assessment of direct and induced effects of activities carried-out by the Centre.

Activities carried-out by the consultant focused on the following:

1. Interviews with the beneficiaries and partners; and
2. Site visits to activities implemented with support from the Centre.

In addition to having more in-depth interviews with the beneficiaries and partners, the objective of the site visits was to identify investigation paths to determine the induced effects. The following sites were visited:

- *The GDCM rice processing unit in Ségou ;*
- *The four rice husking units in Niono;*
- *The shallot storage warehouse in Niono;*
- *The small ruminant market facilities in Mopti and Sikasso;*
- *Equipments for processing maize into semolina and flour (germ-removing machines, screens, bag-knitting needles, alternators) in two villages in Koutiala district (Namposséla and Karangana);*
- *Potato storage equipment and warehouse in Sabénébougou (Sikasso); and*
- *Kadiolo cattle fattening facilities (Sikasso).*

The following summarizes the main results obtained by the consultant from his investigations:

The **demonstration tests** (paddy rice processing by the compact machines, manufacturing of balanced animal fattening feed by small enterprises of animal feed production, storage of potato into boxes and treating with an anti-germ product) achieved the following positive results:

- ▶ The test for production of high quality rice with SB-type compact husking machines, initiated in the Office du Niger area (Niono), is an adequate technology option. In fact, the processing entrepreneurs quickly understood how to operate the machine, it provided good husking yields (about 66%) and the testing caused important stimulating effects, which resulted in the installation of several compact machines (18 were identified) with a total production of about 3,300 tons of rice (5,144 tons of paddy or an average yield of 64%).

A total of 14,300 tons of paddy rice were husked by the processing entrepreneurs (2000/2001 and 2001/2002 campaigns) with direct support and induced effects of CAE intervention. The rice produced is sold at a price that is higher by 15 to 25 FCFA/kg than the price of rice processed by the small Engelberg-type machines.

- ▶ The innovation in the form of “potato storage boxes” introduced by CAE in the supported villages in Sikasso, although not yet fully adopted, is well-appreciated by the farmers. The economy of space within the warehouse (3 to 5 times more space than storage in bulk on the bare floor), the possibility of controlling the conditions of the product during the storage period, significant reduction of the loss rate (8 to 12% compared with 30 to 50% for bulk storage on the bare floor) and the relatively low cost of the boxes, are some of the reasons why farmers appreciated this innovation. During the 2001/2002 campaign, producers stored about 46 tons of potato in boxes.

CAE’s support to the potato sub-sector in Sikasso also helped with the marketing of about 1,035 tons of potato for the 2001/2002 campaign, following storage, at producer prices ranging between 150 and 215 FCFA/kg (797 tons) and 225 to 235 FCFA/kg (508 tons), compared with an average producer price of 80 to 100 FCFA/kg during the harvesting period.

- ▶ In 2001, CAE conducted a demonstration test with balanced animal feed. The results of this test helped CAE provide support to a small agro-enterprise in Ségou to produce a new formula of balanced feed for animal fattening.

This new feed, which is well-appreciated by animal fatteners, was used to fatten 964 cattle heads and 3,133 sheep in 2002. CAE is currently providing support for establishment of a medium enterprise for animal/poultry feed production which may start operations soon.

The ***Support to dried shallot slice (“EST”) marketing*** is a good opportunity for producers in the Dogon Plateau. In fact, shallot is a highly perishable commodity and drying in slices is an appropriate method to reduce losses. Producers in the Dogon Plateau have been practicing since 1989, but they remain confronted with constraints for product marketing. To address this constraint, CAE has developed three strategies: i) to improve the hygienic quality of the product through adequate conditioning: 1,375 producers from 39 groups received training to this effect; ii) to establish commercial relationships between producers and operators from other regions of Mali, in this respect, they participated in 4 commercial weeks (Sikasso, Ségou, Kayes and Mopti); iii) to

identify outlets outside of the country, in this respect, CAE purchased 2.6 tons of EST and recruited a consultant to prospect 2 foreign markets (Conakry and Bouaké in Côte d'Ivoire). This market survey led to promising perspectives for the Bouaké market. All of these activities are supported with periodic broadcasting of EST price information by the OAM. During the 2001/2002 campaign, 35 groups produced 70 tons of EST that was sold at 1,275 FCFA per kilogram.

CAE made considerable efforts for *capacity building* among agribusiness entrepreneurs through training, consultation frameworks, service delivery sub-contracts and contracts and specific support to small-scale food processing enterprises. The results of CAE support for capacity building are deemed positive.

- ▶ Training activities conducted with CAE support placed particular emphasis on business management training and training in production, storage, processing and marketing techniques and technologies. Thus, as early as the second year of the project, 12 training modules in business management were taught to 650 participants working in the agribusiness sector. In addition to these generic modules that are applicable to all enterprises in the agricultural sector, CAE provided training in other modules that addressed sector-specific needs: training to livestock operators in animal feeding and formulation of improved feed, training in quality management for about twenty enterprises which resulted in the establishment of 4 quality groups, training of 10 promoters of private irrigation at Office du Niger in the management of an agricultural enterprise and preparation of contracts. In 2001, CAE also provided support for the development of a training plan for the five Service Delivery Centers (CPS) of Office du Niger, covering the period 2002-2004. This plan includes 17 training activities for 259 participants.

The training activities conducted with CAE support are well-appreciated by the beneficiaries. Agro-entrepreneurs recognize the importance of all training modules in general and particularly the modules on business management, which help them manage their enterprises more rigorously through better understanding of production cost elements.

- ▶ The consultation framework initiated by CAE for various sectors is an appropriate approach, providing the major actors with opportunities to discuss the main constraints in the sectors and to identify solutions together. Thematic workshops organized by CAE about the potato sector in 2002 achieved two fundamental results: i) initiating participatory debates among major actors about the essential issues in this sector. The participatory method adopted during these workshops is one of the most efficient tools to achieve *effective accountability* of actors, which constitutes one of the essential conditions to ensure sustainability of activities after the project phases out; ii) an inventory of essential problems in the sector, proposed solutions and strategies to address identified problems and the development of a three-year action plan to implement the proposed solutions and strategies.

- ▶ The Centre Agro-Enterprise provided multiform support to small-scale food processing enterprises: establishing commercial relationships between promoters and foreign operators through participation in commercial weeks and saloons; marketing support through improved labels to be placed on the packaging.

Promoters of food processing enterprises are particularly satisfied with the packaging and labeling activities, as combined utilization of these two elements contribute in improving product competitiveness in the market. This competitiveness resulted in doubling the sale volumes for almost all enterprises and substantial increase of prices for some products.

- Finally, the Centre Agro-Enterprise has developed partnership with service delivery organizations (consulting firms, NGOs, associations, public and para-statal support institutions and financial institutions) through service delivery contracts and sub-contracts. From 1998 to 2002, 41 service delivery sub-contracts and contracts, concerning 62 services deliveries, have been signed as part of this partnership. These service deliveries concerned training, studies, business plan development, demonstration tests, farmer organization, juridical review of texts, business organization and management, production of didactic and audiovisual materials. Some sub-contracts, mainly those related to business plan development, required preliminary training of the sub-contractors.

Activities carried-out by service delivery organizations, as part of their partnership with CAE, provided opportunities to share and considerably improve one another's experiences, specifically with NGOs/GIEs and other associations established by young school graduates.

The table in **Annex 4** indicates the trends of all indicators (impact and performance) for Year IV.

ANNEX 1

TRAINING OF 10 PROMOTERS IN PRIVATE IRRIGATION AND 2 COUNSELING STAFF FROM ON IN FRENCH LANGUAGE

List of participants

Boubacar Sosso: Farmer in Minimana: 70 ha

Boubacar Touré: Farmer in Minimana: 20 ha

Amed Coulibaly: Farmer in Minimana: 20 ha

Dagaly Coulibaly: Farmer in Sokolo: 10 ha

Bakoroba Kané: Farmer in Kourouma: 10 ha

Oumar Dicko: Farmer in Minimana: 10 ha

Mama Diarra: Farmer in Nango Retail 4: 40 ha

Bah Nampo: Farmer in Retail 4: 10 ha

Ramata Koné: Farmer in Tiémaba (Niono): 24 ha

Malamine Coulibaly: Farmer in Kanassako: 10 ha

Tiéoura Koné: ON staff member, Chef de Casier, water management department

Ladji Adama Diarra: ON staff member, Chef de Casier, water management department.

<i>Dates</i>	<i>Modules</i>	<i>Location</i>	<i>Beneficiaries</i>	<i>Responsible</i>
April 29-30	Understanding your enterprise	Niono	Irrigation promoters/ON Agents	CAE trainer network
May 2-3	Understanding your costs	Niono	Irrigation promoters/ON Agents	CAE trainer network
May 13-14	Understanding your market	Niono	Irrigation promoters/ON Agents	CAE trainer network
May 15-16	Understanding your cash flow	Niono	Irrigation promoters/ON Agents	CAE trainer network
May 27-28	Basic accounting	Niono	Irrigation promoters/ON Agents	CAE trainer network
May 29-30	Stock management	Niono	Irrigation promoters/ON Agents	CAE trainer network
June 10 – 11	Marketing strategy	Niono	Irrigation promoters/ON Agents	CAE trainer network
June 12-13	Business plan	Niono	Irrigation promoters/ON Agents	CAE trainer network
June 24-25	Presentation funding request document	Niono	Irrigation promoters/ON Agents	CAE trainer network
June 26-27	Sales and negotiation techniques	Niono	Irrigation promoters/ON Agents	CAE trainer network
September 2-3	Financial notions	Niono	Irrigation promoters/ON Agents	CAE trainer network
September 4-5	Strategic planning	Niono	Irrigation promoters/ON Agents	CAE trainer network
November 16-17	Group organization techniques	Niono	Irrigation promoters/ON Agents	CAE trainer network
November 18-19	Management and management tools for a farming unit: agricultural yield calculation	Niono	Irrigation promoters/ON Agents	CAE trainer network
December 11-12	Contract development and management	Niono	Irrigation promoters/ON Agents	CAE trainer network

**AGRICULTURAL ENTERPRISE MANAGEMENT TRAINING FOR OFFICE
DU NIGER PRODUCERS AND PROCESSING ENTREPRENEURS:**

List of women trained

Hawa Diakité, Foabougou

Alima Kéita, Foabougou

Hawa Dembélé, Foabougou

Lamala Djiré, Foabougou

Djeneba Diallo, Foabougou

Atou Niaré, N5 Tigabougou

Mariam Sawadogo, N5 Tigabougou

Kadia Soumaré, N9 Tissana

Bintou Cissouma, N10 Ténégué

Saran Traoré, Kougnancoura

Training schedule

<i>Dates</i>	<i>Modules</i>	<i>Location</i>	<i>Beneficiaries</i>	<i>Responsible</i>
May 13-14	Marketing : learning to better understand your clients	Niono	5 women from Foabougou – representatives of the processing sites	CAE trainer network
May 15-16	Supplying: learning to better manage and organize your stock	Niono	5 women from Foabougou – representatives of the processing sites	CAE trainer network
May 27-28	Stock management: learning to better manage and organize your stock	Niono	5 women from Foabougou – representatives of the processing sites	CAE trainer network
May 29-30	Costs: differentiating various types of cost	Niono	5 women from Foabougou – representatives of the processing sites	CAE trainer network
June 10-11	Accounting: learning bookkeeping for your enterprise	Niono	5 women from Foabougou – representatives of the processing sites	CAE trainer network
June 12-13	Financial planning: learning to develop a plan for sales and costs	Niono	5 women from Foabougou – representatives of the processing sites	CAE trainer network

**AGRICULTURAL ENTERPRISE MANAGEMENT TRAINING FOR OFFICE
RIZ SÉGOU PRODUCERS AND PROCESSING ENTREPRENEURS:**

List of women participants

Kadidia Traoré , Dioro, agro-food sector

Sitanfouné Sininta, Dioro, product drying

Amineta Tikampo, Dioro, market-gardening

Korotoumou Diarra,Dioro, market-gardening

Weh Diallo, Dioro, market-gardening

Baro Coulibaly, Sansanding, shallot drying

Bintou Bouaré, Sansanding, shallot drying

Amineta Coulibaly, Sansanding, shallot drying

Wèminatou Konta, Sansanding, shallot drying

Kadiatou Sinenta, Sansanding, shallot drying

Hawa Soucko, Tamani, hibiscus processing

Haby Diarra, Tamani, hibiscus processing

**Training for rice producers in the area of Office Riz de Ségou in rice
production cost Calculation:**

List of rice producers

N°	Surname and Name	Location
1	Amara Konandji	
2	Drissa Coulibaly	
3	Bakary Koné	
4	Oumar Coulibaly	
5	Tidiani Dramé	
6	Nouhoun Diarra	
7	Moustapha Traoré	
8	Adama Diarra	
9	Sidi Ahmed Badjè Keïta	
10	Mariam Koné	
11	Dramane Coulibaly	
12	Bréma Cissé	
13	Soungoba Traoré	
14	Chaka Diarra	
15	Abdoulaye Sidibé	
16	Cheick Hamalla Sidibé	
17	Yousseuf Kéïta	
18	Oumar Tangara	
19	Amadou Maroufou Diarra	
20	Kaka Traoré	
21	Mamadou Dembélé	
22	Abdoulaye Diarra	
23	Baba Koné	
24	Yacouba Bouaré	
25	Souleymane Tangara	
26	Baba Coulibaly	
27	Makan Simpara	
28	Hamidou Dembélé	
29	Boubacar Diarra	
30	Mamou Thiero	

Training schedule

Dates	Modules	Location	Beneficiaries	Responsible
May 6 to 10	Controlling rice production costs: uniformization in the 5 <i>casiers</i>	Ségou	ORS rice producers' association: 36 producers	CAE trainer network
May 6-7	Marketing: learning to better understand your clients	Dioro	15 women supported by ORS	CAE trainer network
May 8-9	Supplying: learning to better manage and organize your stock	Dioro	15 women supported by ORS	CAE trainer network
May 21-22	Stock management: learning to better manage and organize your stock	Dioro	15 women supported by ORS	CAE trainer network
May 23-24	Costs: learning to differentiate between various types of cost	Dioro	15 women supported by ORS	CAE trainer network
June 4-5	Accounting: learning bookkeeping for your enterprise	Dioro	15 counseling agents	CAE trainer network
June 6-7	Financial planning: learning to develop a plan for sales and costs	Dioro	15 women supported by ORS	CAE trainer network

ACTIVITIES OF THE TRAINING, INFORMATION AND COMMUNICATIONS UNIT FROM OCTOBER 1, 2001 TO SEPTEMBER 30, 2002

****February**

02/05/02 to 02/05/02: Training in Tominian: Sales and Negotiations Techniques (33 participants)

02/06/02 to 02/06/02: Training in Tominian: Strategic Planning (32 participants)

02/19/02 to 02/19/02: Training in Tominian: Presentation of a Funding Request Document (32 participants)

02/20/02 to 02/20/02: Training in Tominian: Financial Notions (32 participants)

****April**

03/04/02 to 04/30/02: Training in Bamako: "Training of on-farm buyers" (56 participants)

04/09/02 to 04/09/02: Workshop in Sikasso: "Operations of the mechanism for supplying potato producers in Sikasso" (51 participants)

05/06/02 to 05/10/02: Training in Ségou (Office du Niger: Rice producers' association): Understanding your production costs (30 participants)

****May**

05/06/02 to 05/07/02: Training in Diori at Office Riz (farmer organizations): Marketing (12 participants)

05/08/02 to 05/09/02: Training in Diori at Office Riz (farmer organizations): Supplying (12 participants)

05/13/02 to 05/14/02: Training in Niono at Office du Niger (farmer organizations): Marketing (10 participants)

05/15/02 to 05/16/02: Training in Niono at Office du Niger (farmer organizations): Supplying (10 participants)

05/06/02 to 05/07/02: Training in Niono at Office du Niger (private irrigation promoters): Your enterprise (7 participants)

05/08/02 to 05/09/02: Training in Niono at Office du Niger (private irrigation promoters): Your costs (7 participants)

05/13/02 to 05/14/02: Training in Niono at Office du Niger (private irrigation promoters): Understanding your market (9 participants)

05/15/02 to 05/16/02: Training in Niono at Office du Niger (private irrigation promoters): Your cash flow (9 participants)

05/21/02 to 05/21/02: Workshop in Sikasso: theme “Strategies to support potato producers in Sikasso” (50 participants)

05/21/02 to 05/22/02: Training in Diori at Office du Niger (farmer organizations): Stock management (12 participants)

05/23/02 to 05/24/02: Training in Diori at Office du Niger (farmer organizations): Understanding your costs (12 participants)

05/27/02 to 05/28/02: Training in Niono at Office du Niger (private irrigation promoters): Accounting (6 participants)

05/27/02 to 05/28/02: Training in Niono at Office du Niger (women producers and processing entrepreneurs): Stock management (10 participants)

05/29/02 to 05/30/02: Training in Niono at Office du Niger (women producers and processing entrepreneur): Understanding your costs (10 participants)

05/29/02 to 05/30/02: Training in Niono at Office du Niger (private irrigation promoters): Stock management and accounting (6 participants)

****June**

06/10/02 to 06/11/02: Training in Niono at Office du Niger (private irrigation promoters): Commercial strategies (4 participants)

06/12/02 to 06/13/02: Training in Niono at Office du Niger (private irrigation promoters): Business Plan (4 participants)

06/10/02 to 06/11/02: Training in Niono at Office du Niger (women producers and processing entrepreneur): Accounting (10 participants)

06/12/02 to 06/13/02: Training in Niono at Office du Niger (women producers and processing entrepreneurs): Financial Planning (10 participants)

06/04/02 to 06/05/02: Training in Diori at Office du Niger (farmer organizations): Accounting (12 participants)

06/06/02 to 06/07/02: Training in Diori at Office du Niger (farmer organizations): Financial Planning (12 participants)

****July**

07/09/02 to 07/09/02: Workshop in Sikasso on the theme “Strategies to improve marketing in national and sub-regional market from Sikasso” (64 participants)

****September**

09/24/02 to 09/26/02: Workshop in Sikasso on the theme “Validation of the Action Plan for the potato sub-sector” (64 participants).

STATISTICAL DATA ON BUSINESS MANAGEMENT TRAINING IN YEAR IV

SECTOR	SEGMENT	LOCATION			SEX		MONTH											
		Bamako	Sikasso	Ségou	F	M	Oct.	Nov.	Dec.	Jan.	Fev.	Mar.	April	May	June	July	Aug.	Sept.
LIVESTOCK	Production			5	2	3					2			3				
	Processing			3	1	2					2			1				
	Marketing			5		5					3			2				
FRUIT & VEGETABLE	Production	20	96	33	58	91					18		54	18	15	22		22
	Processing			15	6	9					5			6	4			
	Marketing	51	96	44	95	96					4		83	56	4	22		22
CEREAL	Production			83	22	61					24			44	15			
	Processing			34	24	10					15			15	4			
	Marketing			103	35	68					56			37	10			
		71	192	325	243	345	0	0	0	0	129	0	137	182	52	44	0	44

ANNEX II

SUMMARY OF WORKING SESSIONS WITH CONSULTING FIRMS OF THE SSE PROGRAM

Consulting Firm	Project / Promoter	Purpose of the session
APROFEM	Fruit and vegetable marketing	Discussions of project ideas of promoters supported by APROFEM
Hamadaou SYLLA	Dioro rice processing unit	Discussion about methods for establishment of an accounting system for the Dioro rice processing enterprise
HCD	One-day-chick production enterprise/ SOPRODAM / Bamako	Observations on the final report
Morifing KONE	Animal fattening enterprise and embarking ramp	Observations on the offer
BARREP	Mango processing unit Karité processing unit	Discussions of progress status of the offers
AFRITEC	Animal feed manufacturing	Discussion of the draft report
MCI	Animal feed manufacturing	Observations on the draft report
Yiriwa –conseil (telephone)	Establishment of a cosmetic product manufacturing unit	Observations on the draft report
Yacouba Maiga	Extension of an animal feed manufacturing unit	SSE program participation conditions Methodology of offer preparation for the SSE program
FECACOM	-	SSE program participation conditions

Consulting Firm	Project / Promoter	Purpose of the session
IAE	Establishment of a Business Unit / IER	Observations on the technical and financial offers
ACOD (e-mail)	Cereal marketing / ACCS	Observations on the draft report
BARREP	<ul style="list-style-type: none"> • Mango processing unit • Karité processing unit 	Discussion of the progress status of the offers
Touré Abdramane	<ul style="list-style-type: none"> • Extension of a rice processing unit 	Discussion of conditions for start-up of the study
B§B Consulting	<ul style="list-style-type: none"> • Rice conditioning unit 	Observations on the final report
Yiriwa-Conseil	<ul style="list-style-type: none"> • Establishment of a cosmetic product manufacturing unit • Agricultural product marketing • Bio-Mali (telephone) 	<p>Observations on the final report</p> <p>Observations on the final report</p> <p>Observations on the final report</p>

Consulting Firm	Project / Promoter	Purpose of the Session
GEDUR	<ul style="list-style-type: none"> • Rice processing • Karité processing 	Discussion of the draft project document
ACOD (e-mail, telephone)	<ul style="list-style-type: none"> • Cereal marketing / APLS • Cattle fattening / TOGOLA • Animal fattening Farakala 	<p>Observations on the final report</p> <p>Observations on the final report</p>
Yiriwa –conseil	<ul style="list-style-type: none"> • UCODAL / Mrs. MARIKO • Marketing /GMEPEPA • Marketing /AMEPROC 	Observations on the final reports
B&B Consulting	<ul style="list-style-type: none"> • Animal feed DRAMERA • Rice processing GASA 	Observations on the offers
Salif SANOGO	<ul style="list-style-type: none"> • Soybean processing/ Pierre 	<ul style="list-style-type: none"> • SSE program participation conditions • Discussion of the project idea
B§B Consulting	<ul style="list-style-type: none"> • Animal feed manufacture / NIANGADO 	<ul style="list-style-type: none"> • Discussion of feedback on the technical and financial offers
BARREP	<ul style="list-style-type: none"> • Karité butter processing unit / Mrs. GAMBI 	<ul style="list-style-type: none"> • Discussion of feedback on the draft report

Consulting Firm	Project / Promoter	Purpose of the Session
Boubacar KANTE		<ul style="list-style-type: none"> • SSE program participation conditions
BFC	<ul style="list-style-type: none"> • Cattle fattening / Farakala agro-pastoral association 	<ul style="list-style-type: none"> • Progress status of final phase of the project document
BOUBADIA	<ul style="list-style-type: none"> • Maize processing unit 	<ul style="list-style-type: none"> • Discussion of difficulties encountered by COGETRAM in obtaining BNDA credit and measures to be taken
Yiriwa-Conseil / Nyeta-conseil	<ul style="list-style-type: none"> • 3 projects for husking unit extension 	<ul style="list-style-type: none"> • Observations on the offers
Morifing KONE	<ul style="list-style-type: none"> • Embarking ramp and cattle fattening 	<ul style="list-style-type: none"> • Observations on the draft report
CAB / Demeso	<ul style="list-style-type: none"> • Milk conditioning 	<ul style="list-style-type: none"> • Observations on the offer
Salif et Yacouba		<ul style="list-style-type: none"> • SSE program participation conditions
Modibo KEITA	-	<ul style="list-style-type: none"> • SSE program participation conditions
Salif SANOGO	<ul style="list-style-type: none"> • Soybean processing unit 	<ul style="list-style-type: none"> • Discussion of the technical and financial offers
Delta -Conseil	-	<ul style="list-style-type: none"> • Discussion of the outline of technical and financial offers
BFC	<ul style="list-style-type: none"> • Cattle fattening / Farakala agro-pastoral association 	<ul style="list-style-type: none"> • Progress status of final phase of the project document

Consulting Firm	Project / Promoter	Purpose of the Session
TOURE Abdramane	<ul style="list-style-type: none"> • Small-scale rice processing 	<ul style="list-style-type: none"> • Progress status of the project document and future collaboration lines with CAE
Yiriwa-Conseil	<ul style="list-style-type: none"> • 3 husking projects in the Niono area • Ségou-lait 	<ul style="list-style-type: none"> • Observations on the final reports
Garibou YALCOUE	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • SSE program participation conditions
BFC ET YIRIWA	<ul style="list-style-type: none"> • Small-scale rice processing in Koulikoro/ BAH 	<ul style="list-style-type: none"> • Observations on the technical and financial offers
CAB Demèso	<ul style="list-style-type: none"> • Milk conditioning in Kassela and Keleya/ Djitoumou Federation 	<ul style="list-style-type: none"> • Observations on the draft report
AMCE	<ul style="list-style-type: none"> • Fruit juice processing unit 	<ul style="list-style-type: none"> •
Yiriwa –conseil	<ul style="list-style-type: none"> • UCODAL / Mrs. MARIKO • Marketing /GMEPEPA • Marketing /AMEPROC 	<ul style="list-style-type: none"> • Observations on the final reports
B&B Consulting	<ul style="list-style-type: none"> • Animal feed / DRAMERA • Rice processing / GASA 	<ul style="list-style-type: none"> • Observations on the offers
Salif SANOGO	<ul style="list-style-type: none"> • Soybean processing / Pierre 	<ul style="list-style-type: none"> • SSE program participation conditions • Discussion of the project idea
B&B Consulting	<ul style="list-style-type: none"> • Animal feed manufacturing / NIANGADO 	<ul style="list-style-type: none"> • Discussion of feedback on the technical and financial offers
BARREP	<ul style="list-style-type: none"> • Karité butter processing unit / Mrs. GAMBI 	<ul style="list-style-type: none"> • Discussion of feedback on the draft report
Boubacar KANTE		<ul style="list-style-type: none"> • SSE program participation conditions

Consulting Firm	Project / Promoter	Purpose of the Session
BFC	<ul style="list-style-type: none"> • Cattle fattening / Farakala agro-pastoral association 	<ul style="list-style-type: none"> • Progress status of final phase of the project document
BOUBADIA	<ul style="list-style-type: none"> • Maize processing unit 	<ul style="list-style-type: none"> • Discussion of difficulties encountered by COGETRAM in obtaining BNDA credit and measures to be taken
Yiriwa-Conseil / Nyeta-conseil	<ul style="list-style-type: none"> • 3 projects for extension of a husking unit 	<ul style="list-style-type: none"> • Observations on the offers
Morifing KONE	<ul style="list-style-type: none"> • Embarking ramp and cattle fattening 	<ul style="list-style-type: none"> • Observations on the draft report
CAB / Demeso	<ul style="list-style-type: none"> • Milk conditioning 	<ul style="list-style-type: none"> • Observations on the offer
Salif et Yacouba		<ul style="list-style-type: none"> • SSE program participation condition

ANNEX III

PROGRESS STATUS OF BUSINESS PLANS SUPPORTED BY CAE

Project Title	Estimated Cost of the Project	Credit Amount	Status of the Document as of September 30, 2000	Status of the Document as of September 30, 2001	Status of the Document as of September 30, 2002	Bank Solicited for financing
COGETRAM/ Maize processing	66,363	25,562	Finalized and submitted to banks	Financed by BNDA Up to 20 million	Closed	Bank of Africa, Crédit Initiative S.A BNDA
GDCM rice processing	1,225	675,000	Finalized in partnership with APDF / Abidjan	Financed by BNDA – BICIM bank pool in the amount of 400 million	Closed	BCS, BOA, Crédit Initiative S.A, SFI Dakar
Bandenya Group in Siengo / Extension of husking unit	14,214	7,545	-	BNDA expressed interest to finance the document, but the promoter has not met the conditions required by the bank.	To be removed from the portfolio	BNDA, Crédit Initiative S.A
GASA / Small-scale rice processing, Niono	60,957	42,670	-	Under advanced review with Crédit Initiative S.A	European Union expressed agreement in principle to finance this project	Crédit Initiative S.A, BOA
SENAGRI /Campaign credit for rice husking unit	1,129,000	1,058,000	-	Document finalized and submitted to BDM. The promoter is not follow-up the document.	To be removed from the portfolio	BDM S.A, BDM, Crédit Initiative S.A

Project Title	Estimated Cost of the Project	Credit Amount	Status of the Document as of September 30, 2000	Status of the Document as of September 30, 2001	Status of the Document as of September 30, 2002	Bank Solicited for financing
Extension of Dioro rice processing unit	2,000,000	2,000,000	Feasibility study will start in September in partnership with APDF	Document finalized and submitted to banks. Agreement in principle by certain banks to finance	The promoter declined financing from local banks. He submitted his document to BOAD which seems to have interest for financing	BIM, BDM S.A, BOA, BNDA
Small-scale rice processing in Ségou/ SUMA S.A	200,000	150,000	-	Draft report delivered. To be finalized by December 2001	To be removed from the portfolio	-
Mamadou DEMBELE / Rice conditioning unit	162,000	104,000		Draft report delivered. To be finalized by December 2001	Finalized and submitted to BOA, BNDA	-
ACCS Ségou/ Establishment of cereal cleaning and marketing enterprise	200,000	170,000		Document being finalized	Finalized and submitted to kafo-Jiginew and BOA	-
COGETRAM/ Extension of a maize processing unit	600,000	475,000		Document being finalized	Finalized	
MILAIBA/ Small-scale dairy unit	150,000	100,000	Under review with avec OIKOCREDI T	Document receivable Under advanced review with OIKOCREDIT and PUFS	Under review	OIKOCRE DIT / Abidjan, PUFS / Lomé
Harry Délices / Extension of a small-scale dairy unit	200,000	100,000		Draft report delivered. To be finalized by late November	Finalized and under review with OIKOCREDIT / Abidjan, PUFS / Lomé and BOA.	-

Project Title	Estimated Cost of the Project	Credit Amount	Status of the Document as of September 30, 2000	Status of the Document as of September 30, 2001	Status of the Document as of September 30, 2002	Bank Solicited for financing
PROVEL / Extension of a small-scale dairy unit	130,000	100,000		Document finalized Document receivable Under advanced review with sub-regional banks	Under review	PUFS / Lomé et OIKOCREDIT / Abidjan
Adama TOGOLA / Cattle fattening	74,474	59,474		Document preparation underway. To be finalized by late December 2001	Finalized. Under review with Crédit Initiative S.A	
Yaya Dolo/ One-day-chick and poultry feed production enterprise	625,000	500,000		Document preparation underway. To be finalized by late November 2001	Finalized. The promoters gave-up the project	
Extension of a modern honey processing unit	500,000	470,000	Under review with OIKOCREDIT	Under review with OIKOCREDIT who thinks that honey is a new sector	Under review with Crédit Initiative S.A	OIKOCREDIT / Abidjan
Sweet peas conditioning and grading	350,000	300,000	Under review with OIKOCREDIT	Document receivable Agreement of OIKOCREDIT / Abidjan credit committee for financing	Awaiting approval from OIKOCREDIT Headquarters in Amsfoort.	OIKOCREDIT / Abidjan, Cauris Investissement Lomé
Karite butter processing unit	300,000	150,000	En discussion avec OIKOCREDIT	Document receivable Under advanced review with OIKOCREDIT	Under review	OIKOCREDIT / Abidjan
Modibo Bathily/ Tomato processing unit	120,000	80,000		Draft report delivered. To be finalized by late December 01	To be removed from the portfolio	-
Cold chamber for Fruileg	40,000	30,000	Preparation underway To be completed by October	The promoter has given-up the project	To be removed from the portfolio	-

Project Title	Estimated Cost of the Project	Credit Amount	Status of the Document as of September 30, 2000	Status of the Document as of September 30, 2001	Status of the Document as of September 30, 2002	Bank Solicited for financing
Self-managed warehouse/ COPAK	250,000	200,000	Study underway To be finalized by November	Document finalized and under advanced review with sub-regional banks	The last version of the document was prepared by the PUFS consultant. This version will be presented to PUFS and OIKOCREDIT credit committees.	OIKOCREDIT PUFS
Poultry feed production	200,000	170,000	Study underway To be finalized by December 2000	Document finalized and under advanced review with sub-regional banks	The last version of the document was prepared by the PUFS consultant. This version will be presented to PUFS and OIKOCREDIT credit committees.	OIKOCREDIT / Abidjan PUFS /Lomé
Jabirou HAIDARA/ Animal feed manufacturing	246,823	173,000		Draft report delivered. To be finalized by late December 01	Finalization underway	-
Moussa DOLO/ Animal feed manufacturing	57,150	40,006		Draft report delivered. To be finalized by late December 01	Finalization underway	-
ADEBORIA S.A/ Tannery				Final report given to the promoter. The project will be self-financed	-	-
Livestock and meat marketing	150,000	100,000	Study underway To be finalized by November	The promoter has given-up the project	To be removed from the portfolio	

Project Title	Estimated Cost of the Project	Credit Amount	Status of the Document as of September 30, 2000	Status of the Document as of September 30, 2001	Status of the Document as of September 30, 2002	Bank Solicited for financing
Cattle merchants' cooperative, Ségou/ Cattle fattening	16,383	14,613		Document finalized and financed by CAE		BNDA
Niéna Cattle merchants' cooperative/ Cattle fattening	5,710	5,000		Document finalized and financed by CAE		BNDA
Koro-barrage cooperative/ cattle fattening	5,440	5,000		Document finalized and financed by CAE		BNDA
Farakala Agro-pastoral Association / Cattle fattening	5,404	5,000		Document finalized and financed by CAE		BNDA
Sikasso animal fatteners cooperative / Cattle fattening	5,640	5,000		Document finalized and financed by CAE		BNDA
COBAS / Cattle fattening	5,022	5,000		Document finalized and financed by CAE	-	BNDA
COBAS / Marketing	11,613,500	10,000		Document finalized and financed by CAE	-	BNDA
Modibo TRAORE/ Fruit and vegetable processing	70,000	5,000	Study underway. To be finalized by December	The promoter has given-up his project	To be removed from the portfolio	
Tam Fruits / Mango drying unit	484,000	230,000		Draft report delivered. The final report is expected by late November	Finalized. BICIM expressed interest to finance the document up to 110 million	

Project Title	Estimated Cost of the Project	Credit Amount	Status of the Document as of September 30, 2000	Status of the Document as of September 30, 2001	Status of the Document as of September 30, 2002	Bank Solicited for financing
Mali – Cosmetics / Karité butter-based cosmetic product manufacturing unit	90,550	60,000	-		Finalized and submitted to Crédit Initiative S.A	
Ombotimbé Dist Extension of agricultural product marketing enterprise	40,000	30,000		Draft report delivered. To be finalized by late November 01	To be removed from the portfolio	
TOURE/ Establishment of Karité butter-based cosmetic product manufacturing unit	50,000	40,000		Draft report delivered. To be finalized by late November 01	Finalized and submitted to Crédit Initiative S.A and BDM S.A	
Production of potato Chips	40,000	37,000	Study underway. To be finalized by December	Document finalized. The promoter gave-up bank financing as project was financed by her family	To be removed from the portfolio	
Cattle leg and red meat exports	100,000	65,000	Study underway. To be finalized by December 2000	Document finalized and financed by BIM	Under implementation	-
Farakala Agro-pastoral Association / Extension of cattle fattening project	-	-		Document under study	Finalized and financed by BNDA up to two million	
ACCS/ Cereal storage and marketing	100,000	65,000		Draft report delivered. To be finalized by late November 01	To be removed from the portfolio	
Sesame conditioning unit / Goumane	125,000	100,000	Study underway. To be finalized by December 2000	Study underway. Technological research underway	To be removed from the portfolio	

Project Title	Estimated Project Cost	Credit Amount	Document Status as of September 30, 00	Document Status as of September 30, 01	Document Status as of September 30, 02	Bank Solicited for Financing
Paddy rice husking unit / GIE Kankelen	26,709	21,500			Finalized and submitted to BNDA. The promoters refused the amount of financing, 2 million, proposed by BNDA.	
Paddy rice husking unit / Nyeta association	25,258	20,000			Finalized and submitted to BNDA. The promoters refused the amount of financing, 2 million, proposed by BNDA.	
Paddy rice husking unit / Mah DIARRA	32,619	26,000			Finalized and submitted to BNDA. BNDA expressed agreement to finance the revolving fund up to 7 million	
Kona village Animal Raisers' Association	21,198	20,000			Finalized and submitted to BNDA. BNDA seems to interested in financing this project	
Dairy unit / Ségou-Lait	137,457	90,000			Finalized and submitted to BDM. The promoter wishes to obtain financing from an international source	BDM

Project Title	Estimated Project Cost	Credit Amount	Document Status as of September 30, 00	Document Status as of September 30, 01	Document Status as of September 30, 02	Bank Solicited for Financing
Poultry farming / Moriké DEMBELE	5,250	4,500			Document rejected by BNDA for lack of guarantee	BNDA
Association Allaye KOITA et Fils	20,917	17,970			Document under review with BNDA	BNDA
Improving milk collection and storage / Milk Producers' Association	15,688	11,488			Under review	BNDA

The amounts are expressed in K FCFA